

DOCKETED

Docket Number:	99-AFC-05C
Project Title:	Otay Mesa Compliance
TN #:	203529
Document Title:	Otay Mesa Petition to Amend Air Quality Conditions of Certification Executive Summary and Analysis
Description:	Staff Analysis of Air Quality Amendment Proposals
Filer:	Dale Rundquist
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	1/16/2015 10:37:13 AM
Docketed Date:	1/16/2015

CALIFORNIA ENERGY COMMISSION

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



DATE: January 16, 2015

TO: Interested Parties

FROM: Dale Rundquist, Compliance Project Manager

**SUBJECT: Otay Mesa Energy Center (99-AFC-5C)
Staff Analysis of Air Quality Amendment Proposals**

On May 29, 2014, Otay Mesa Energy Center, L.L.C. filed a petition with the California Energy Commission (Energy Commission) requesting to amend the Final Decision, as amended, for the Otay Mesa Energy Center (Otay Mesa) project. Staff prepared an analysis of this proposed change that can be reviewed on the Energy Commission's website for this facility.

Otay Mesa, a combined-cycle, natural gas-fired, electricity-generating facility was certified by the Energy Commission in its Decision on April 23, 2001, and began commercial operation on October 3, 2009. The facility, located in the Otay Mesa area in western San Diego County, California, can generate up to 689 megawatts.

Energy Commission staff (staff) reviewed the petition and assessed the impacts of this proposal on environmental quality and on public health and safety. In the Staff Analysis, Air Quality staff proposes new, deleted and renumbered and/or revised Air Quality Conditions of Certification. It is staff's opinion that, with the implementation of these new, deleted and renumbered and/or revised conditions, the facility would continue to comply with applicable federal, state, and San Diego Air Pollution Control District air quality laws, ordinances, regulations and standards. The proposed modifications would not result in significant air quality or Greenhouse Gas related impacts. There are no air quality environmental justice issues related to this amendment request and no minority or low-income populations would be significantly or adversely impacted. The proposed changes to the conditions of certification would not result in any significant, adverse, direct, indirect, or cumulative impacts to the environment (20 Cal. Code of Regs., § 1769).

Energy Commission staff intends to recommend approval of the petition at the March 11, 2015, Business Meeting of the Energy Commission.

The Energy Commission's webpage for this facility, <http://www.energy.ca.gov/sitingcases/otaymesa/>, has a link to the petition and the Staff Analysis on the right side of the webpage in the box labeled "Compliance Proceeding." Click on the "Documents for this Proceeding (Docket Log)" option. If the proposed change is approved, the Energy Commission's Order regarding this petition will also be available from the same webpage.

This letter has been mailed to the Energy Commission's list of interested parties and property owners adjacent to the facility site. It has also been e-mailed to the facility listserv. The listserv is an automated Energy Commission e-mail system by which information about this facility is e-mailed 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.

Agencies and members of the public who wish to provide comments on the amendment petition are asked to submit their comments by 5:00 p.m., February 17, 2015. To use the Energy Commission's electronic commenting feature, go to the Energy Commission's webpage for this facility, cited above, click on the "Submit e-Comment" link, and follow the instructions in the on-line form. Be sure to include the facility name in your comments. Once submitted, the Energy Commission Dockets Unit reviews and approves your comments, and you will receive an e-mail with a link to them.

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

California Energy Commission
Dockets Unit, MS-4
Docket No. 99-AFC-5C
1516 Ninth Street
Sacramento, CA 95814-5512

All comments and materials filed with and approved by the Dockets Unit will be added to the facility Docket Log and become accessible to the public on the Energy Commission's webpage for the facility.

If you have questions about this notice, please contact Dale Rundquist, Compliance Project Manager, at (916) 651-2072, or by fax to (916) 654-3882, or via e-mail to dale.rundquist@energy.ca.gov.

For information on participating in the Energy Commission's review of the petition, please call the Public Adviser at (800) 822-6228 (toll-free in California) or send your e-mail to publicadviser@energy.ca.gov. News media inquiries should be directed to the Energy Commission Media Office at (916) 654-4989, or by e-mail to mediaoffice@energy.ca.gov.

Enclosure
Mail List 708
Otay Mesa Listserv

OTAY MESA ENERGY CENTER (99-AFC-5C)
Petition to Amend the Final Decision
Executive Summary
Dale Rundquist

INTRODUCTION

On May 29, 2014, Otay Mesa Energy Center, L.L.C. filed a petition with the California Energy Commission (Energy Commission) requesting to amend the Final Decision for the Otay Mesa Energy Center (Otay Mesa). The modifications proposed in the petition would amend the Energy Commission Air Quality Conditions of Certification to reflect the conditions currently in Otay Mesa's Title V Permit and Permit to Operate. The changes will allow Otay Mesa to continue to comply with all applicable laws, ordinances, regulations, and standards (LORS) and will not result in any significant adverse effects on the environment.

The petition would also remove all construction and commissioning air quality conditions, since Otay Mesa is in operation, and any air quality conditions pertaining to the auxiliary boiler on site, since the boiler is no longer in use.

The purpose of the Energy Commission's review process is to assess any impacts the proposed modifications would have on environmental quality and on public health and safety. The process includes an evaluation of the consistency of the proposed changes with the Energy Commission's Final Decision and an assessment of whether the project, as modified, would remain in compliance with applicable LORS (Title 20, Calif. Code of Regulations, section 1769).

Energy Commission staff (staff) has completed its review of all materials received. The Staff Analysis below is staff's assessment of the project owner's proposal to amend the Energy Commission Air Quality Conditions of Certification.

PROJECT LOCATION AND DESCRIPTION

Otay Mesa is a combined-cycle, natural gas-fired, electricity-generating facility certified by the Energy Commission in its Decision on April 23, 2001. Otay Mesa began commercial operation on October 3, 2009. The facility, located in the Otay Mesa area in western San Diego County, California, can generate up to 689 MW.

DESCRIPTION OF PROPOSED MODIFICATIONS

This Petition requests modification of the air quality conditions of certification in the Energy Commission license. In addition, it requests removal of any air quality conditions pertaining to the auxiliary boiler, because the auxiliary boiler is no longer operating. The

District has reviewed the proposed changes and has issued a revised Title V permit and Permit to Operate on June 7, 2013.

STAFF'S ASSESSMENT OF THE PROPOSED PROJECT CHANGES

The technical area sections contained in this Staff Analysis include staff-recommended changes to the existing Air Quality Conditions of Certification in the Otay Mesa Decision. Staff has proposed new, renumbered and/or revised Air Quality Conditions of Certification in order to assure compliance with LORS and/or to reduce potential environmental impacts to a less than significant level. Staff's conclusions in each technical area are summarized in **Executive Summary Table 1**, below.

Energy Commission staff reviewed the petition for potential environmental effects and consistency with applicable LORS. Staff has determined that current conditions of certification in the technical or environmental areas of Cultural Resources, Facility Design, Geological Hazards and Resources, Hazardous Materials Management, Noise and Vibration, Paleontological Resources, Soil and Water, Traffic and Transportation, Transmission Line Safety and Nuisance, Transmission System Engineering, Waste Management, and Worker Safety and Fire Protection will ensure that Otay Mesa will remain in compliance with all applicable LORS. No revisions or new conditions of certification in these areas are needed to ensure the project remains in compliance.

Biological Resources Staff found that the project would remain in compliance with applicable LORS for biological resources and the proposed modifications would not result in a significant adverse direct, indirect, or cumulative impact to biological resources (Title 20, California Code of Regulations, Section 1769). Staff has consulted with U.S. Fish and Wildlife Service (USFWS) and discussed whether the proposed amendment would require re-initiation of formal consultation pursuant to Section 7 of the Endangered Species Act of 1978. The USFWS staff confirmed that based on the proposed changes there would be no need to reassess the Biological Opinion.

Land Use Staff states that the proposed amendment would not cause an impact to the California Environmental Quality Act Guidelines; Appendix G II, Agricultural and Forest Resources and X, Land Use and Planning, or conflict with any applicable land use plan, policy, or regulation of San Diego County. The proposed amendment would have no land use impacts and would not affect the Land Use Conditions of Certification in the Energy Commission Decision for the Otay Mesa Energy Center Project.

Socioeconomics Staff reviewed the petition and determined that it would not cause an impact to the California Environmental Quality Act Guidelines; Appendix G XII, Population and Housing and XIV, Public Services. The proposed amendment would have no socioeconomic impacts and would not affect the Socioeconomics Conditions of Certification in the Energy Commission Decision for the Otay Mesa Energy Center Project.

Visual Resources Staff determined that modification to the Air Quality Conditions of Certification in the Energy Commission license would not have a substantial adverse

effect on a scenic vista or substantially degrade the existing visual character or quality of the site and its surroundings. The Visual Resources Conditions of Certification in the Energy Commission Decision in the Otay Mesa Energy Center project proceeding would not be affected. The project will continue to comply with all applicable LORS (Section 1769(a)(2)).

Staff determined, however, that the technical area of Air Quality would be affected by the proposed project changes and proposes minor modifications to the Staff Conditions of Certification **AQ-SC1**, **AQ-SC3**, **AQ-SC6**, **AQ-SC7**, **AQ-SC8**, and **AQ-SC9**. Staff also proposes changing San Diego, Air Pollution Control District Conditions of Certification **AQ-1** and **AQ-2**, removing all construction, commissioning and auxiliary boiler (since the boiler is no longer in use) conditions of certification and modifying and renumbering the remaining conditions of certification from **AQ-3** through **AQ-50** in order to assure compliance with LORS and to reduce potential environmental impacts to a less than significant level. These proposed modifications to the Air Quality Conditions of Certification are provided in the Air Quality Staff Analysis section below.

**Executive Summary Table 1
Summary of Impacts for Each Technical Area**

TECHNICAL AREAS REVIEWED	STAFF RESPONSE			Revised Conditions of Certification Recommended
	Technical Area Not Affected	No Significant Environmental Impact*	Process As Amendment	
Air Quality			X	X
Biological Resources	X			
Cultural Resources	X			
Facility Design	X			
Geological Resources	X			
Hazardous Materials Management	X			
Land Use	X			
Noise & Vibration	X			
Paleontological Resources	X			
Socioeconomics	X			
Soil & Water Resources	X			
Traffic & Transportation	X			
Transmission Line Safety & Nuisance	X			
Transmission System Engineering	X			
Visual Resources	X			
Waste Management	X			
Worker Safety & Fire Protection	X			

*There is no possibility that the proposed modifications may have a significant effect on the environment, and the modifications will not result in a change in or deletion of a condition adopted by the Commission in the Final Decision, or make changes that would cause project noncompliance with any applicable laws, ordinances, regulations, or standards (20 Cal. Code Regs., § 1769 (a)(2)).

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 modification(s) would not change the findings in the Energy Commission's Decision pursuant to Title 20, California Code of Regulations, section 1755;
- There would be no new or additional unmitigated, significant environmental impacts associated with the proposed modifications;
- The facility would remain in compliance with all applicable laws, ordinances, regulations, and standards;
- The modification(s) proposed in the petition have been evaluated by the air district in the current District Title V Permit and Permit to Operate, and would assist Otay Mesa in maintaining compliance with the Decision and air district conditions;
- The proposed modification(s) would be beneficial to the public, and the applicant because the Energy Commission Air Quality Conditions of Certification would be modified to reflect the conditions currently in Otay Mesa's Title V Permit and Permit to Operate, all construction and commissioning air quality conditions would be removed since Otay Mesa is in operation, and any air quality conditions pertaining to the auxiliary boiler on site would be removed, since the boiler is no longer in use; and
- The proposed modification(s) are justified because information that was not available to the parties prior to Energy Commission certification is now available, in that Otay Mesa's Title V Permit and Permit to Operate have been revised and the auxiliary boiler is no longer operating eliminating the need for air quality conditions that apply to the boiler.

OTAY MESA ENERGY CENTER (99-AFC-5C)
Petition to Update Air Quality Conditions of Certification
AIR QUALITY ANALYSIS
Wenjun Qian, Ph.D., P.E.

SUMMARY OF CONCLUSIONS

Staff finds that with the adoption of the attached conditions of certification, the modified Otay Mesa Energy Center (Otay Mesa) would continue to comply with applicable federal, state, and San Diego Air Pollution Control District (SDAPCD or District) air quality laws, ordinances, regulations and standards (LORS). The proposed modifications would not result in significant air quality or Greenhouse Gas (GHG) related impacts. There are no air quality environmental justice issues related to this amendment request and no minority or low-income populations would be significantly or adversely impacted.

INTRODUCTION

In April 2001, the Energy Commission adopted the Commission Decision (CEC 2001) to certify the Otay Mesa Project. Since then, there have been multiple Commission Orders approving a number of petitions to amend. In January 2004, the Energy Commission approved a petition to amend the facility by separating and increasing stack height of the Heat Recovery Steam Generator (HRSG)/turbines, and adding duct firing, an auxiliary boiler and a wet surface air condenser (CEC 2004a). In August 2004, the Energy Commission approved the petition to revise the Air Quality Condition of Certification **AQ-75** (later changed to **AQ-SC6**) in order to delay and increase the required \$1.2 million mitigation fee for PM 10 offsets (CEC 2004b). In September 2005, the Energy Commission approved the ownership transfer from the Otay Mesa Generating Company, LLC to Otay Mesa Energy Center, LLC and the name change from the Otay Mesa Generating Project to Otay Mesa Energy Center (OMEC). In June 2009, the Energy Commission adopted an order (CEC 2009) approving a petition to modify Air Quality conditions of certification to include an option to provide additional emission reduction credits in lieu of meeting a proposed NO_x limit of 1 part per million (ppm) and provide language clarification for compliance methods and consistency with federal terminology.

On May 29, 2014, Otay Mesa Energy Center, LLC, the owner/operator of the Otay Mesa Energy Center, filed a petition to amend (OMEC 2014) requesting to modify air quality conditions of certification adopted by the Energy Commission. The petition also requests removal of all conditions relating to the on-site auxiliary boiler, because it is no longer in operation. The District has reviewed the changes and has issued a revised Title V permit and Permit to Operate (PTO) on June 7, 2013.

LAWS, ORDINANCES, REGULATIONS AND STANDARDS (LORS)

The Commission Decision (CEC 2001), the January 2004 Commission Order (CEC 2004a), the August 2004 Commission Order (CEC 2004b), and the 2009 Commission Order (CEC 2009) concluded the facility complied with all applicable federal, state, and SDAPCD air quality LORS. Staff has not identified additional applicable LORS relative to the current amendment petition.

ANALYSIS

The proposed amendments to the air quality conditions of certification are administrative or minor in nature. Most of the conditions of certification would be moved to match the sequence of the conditions in the current PTO.

Auxiliary boiler

The petition to amend requests the removal of all conditions that relate to the auxiliary boiler on site. The auxiliary boiler was initially intended to provide gland seal steam to the steam turbine to assist in shortening the startup sequence and thereby reducing startup emissions. On May 31, 2012, OMEC representatives filed a petition to the District requesting authorization to remove the auxiliary boiler (District case numbers are APCD2012-APP-002154). OMEC representatives stated that with the use of OpFlex software and its experience optimizing the startup sequence, it can accomplish all necessary operation tasks and meet applicable emission limitations without the assistance of an auxiliary boiler. The District approved the petition to remove the auxiliary boiler and deleted all conditions relating to the auxiliary boiler. Staff has reviewed the proposed changes and agrees that the auxiliary boiler could be removed and relevant conditions could be deleted.

Startup emissions

The petition requests removal of the Energy Commission approved Conditions of Certification **AQ-22**, **AQ-23**, and **AQ-24**, regarding oxides of nitrogen (NO_x) and carbon monoxide (CO) emissions limits during commissioning period startups and shutdowns. The District deleted these conditions because they were only intended to apply during the commissioning period, during which emissions are higher due to control equipment not being installed and/or calibrated properly. Once the turbines have been commissioned and the control equipment is fully operational, more stringent emission limits for on-going operations (e.g. **AQ-37**) become applicable. Commissioning period was a temporary stage in the installation of the equipment and conditions applying to this period are not included in the PTO. Staff believes **AQ-22**, **AQ-23**, and **AQ-24** are obsolete and could be deleted.

The proposed modifications to other conditions are administrative or minor in nature. **Air Quality Table 1** shows the mapping of approved conditions of certification with facility owner proposed modifications and justification. Staff proposes renumbering some conditions of certification and consolidation as appropriate to streamline conditions. Staff also proposes to modify the verifications of some conditions to clarify reporting requirements of these conditions. The facility owner is already reporting in a manner

consistent with the revised verification language. These recommendations are also shown in **Air Quality Table 1**.

The proposed modifications would not result in significant air quality or GHG related impacts. There are no air quality environmental justice issues related to this amendment request and no minority or low-income populations would be significantly or adversely impacted.

**Air Quality Table 1
Air Quality Conditions of Certification (COCs)
with Proposed Modifications and Justification**

Approved COCs Numbering	Facility Owner Proposed COCs Numbering	Staff Proposed COCs Numbering	Facility Owner Proposed Modifications and Justification	Staff Proposed Modifications and Justification
AQ-SC7	Not applicable	AQ-SC7	Not applicable	For the verification of the condition, staff proposes to delete the reference to AQ-57 because of the proposed deletion of AQ-57.
AQ-1	AQ-1	Same	No change	Same
AQ-2	AQ-2	Same	No change	Same
AQ-3	AQ-6	Same	Matches PTO	Same
AQ-4	AQ-47	Same	Matches PTO	The facility owner did not propose any changes to the text of the condition. It's simply moved to the end of the permit.
AQ-5	Deleted	Same	Not in construction	Same
AQ-6	AQ-52	AQ-45	Moved to end of permit	The facility owner proposed AQ-45 is identical to proposed AQ-44. Staff proposes to delete the duplicate condition and renumber approved AQ-6 as AQ-45 instead. Staff proposes to change the verification of the condition to "none required" because the construction of the exhaust stacks was completed.
AQ-7	AQ-53	AQ-48	Moved to end of permit	Staff proposes to renumber this condition as AQ-48 because of the proposed deletion of approved condition AQ-8 (shown below). In addition, staff proposes to change the verification of the condition to "none required" because the installation of the source test ports and platforms was completed.
AQ-8	AQ-48	Deleted	Moved to end of permit	Staff believes the requirements in the approved AQ-8 would be covered by the proposed new condition AQ-3. Staff proposes to

Approved COCs Numbering	Facility Owner Proposed COCs Numbering	Staff Proposed COCs Numbering	Facility Owner Proposed Modifications and Justification	Staff Proposed Modifications and Justification
				delete the approved AQ-8 instead of moving it to the end of the permit.
AQ-9	Deleted	Same	Not in construction	Same
AQ-10	Deleted	Same	Not in construction	Same
AQ-11	Deleted	Same	Not in construction	Same
AQ-12	AQ-54	AQ-36	Moved to end of permit	Staff noticed that the PTO condition 36 covers contents in both approved conditions AQ-12 and AQ-29. Staff proposes to combine approved conditions AQ-12 and AQ-29 into one condition as AQ-36, instead of moving AQ-12 to the end of the permit.
AQ-13	AQ-55	Deleted	Moved to end of permit	The current PTO condition 30 (proposed AQ-30) replaces approved conditions AQ-13 and AQ-66 regarding Continuous Emissions Monitoring Systems (CEMS) regulations. Staff proposes to delete the approved conditions AQ-13 and AQ-66.
AQ-14	AQ-34	Same	Matches PTO	In addition to making records of any CEMS software changes available for inspection, staff proposes to require documentation of any such changes in the subsequent quarterly report so that Energy Commission can continue to monitor compliance with the condition.
AQ-15	Deleted	Same	Not in construction	Not in initial commercial operation
AQ-16	AQ-9	Same	Matches PTO	For the verification of the condition, staff proposes to change "information gathered in this condition" to "total aggregate annual emissions of NOx and CO summarized for each consecutive 12-calendar month period" to clarify the information to be included in the quarterly reports.
AQ-17	AQ-10	Same	Matches PTO	For the verification of the condition, staff proposes to change "information gathered in this condition" to "total aggregate annual emissions of VOC

Approved COCs Numbering	Facility Owner Proposed COCs Numbering	Staff Proposed COCs Numbering	Facility Owner Proposed Modifications and Justification	Staff Proposed Modifications and Justification
				summarized for each consecutive 12-calendar month period” to clarify the information to be included in the quarterly reports.
AQ-18	AQ-37	Same	Matches PTO	Same
AQ-19	Deleted	Same	No more auxiliary boiler	Same
AQ-20	AQ-56	AQ-50	Moved to end of permit	Staff proposes to renumber this condition as AQ-50 because of the staff proposed deletion of approved condition AQ-66. For the verification of the condition, staff proposes to change “The information gathered in this condition” to “A summary of exceedances, if any, and a statement showing compliance status with this condition” to clarify the information to be included in the quarterly reports.
AQ-21	AQ-23	Same	Matches PTO	Since the proposed condition AQ-23 combines both approved conditions AQ-21 and AQ-39, staff proposes to combine the verifications for both approved conditions AQ-21 and AQ-39 to require maintaining records of both the duration and the NOx emission concentrations of all startups.
AQ-22	Deleted	Same	Commissioning period is completed	See details in the text
AQ-23	Deleted	Same	Not in PTO	Commissioning period is completed, see details in the text
AQ-24	Deleted	Same	Not in PTO	Commissioning period is completed, see details in the text
AQ-25	Deleted	Same	Commissioning period is completed	Same
AQ-26	Deleted	Same	Commissioning period is completed	Same
AQ-27	Deleted	Same	Commissioning period is completed	Same
AQ-28	AQ-46	Same	Moved to end of permit	This condition refers to a list of conditions that are applicable during on-going operations. In the proposed list of conditions, the facility owner’s did not include

Approved COCs Numbering	Facility Owner Proposed COCs Numbering	Staff Proposed COCs Numbering	Facility Owner Proposed Modifications and Justification	Staff Proposed Modifications and Justification
				proposed conditions AQ-36 and AQ-51, which correspond to approved conditions AQ-12 and AQ-20 respectively. Staff believes these conditions as well as proposed conditions AQ-9, AQ-10, AQ-23, and AQ-37 are still applicable thus need to be referred to in this condition. For the verification of the condition, staff proposes to change "The information gathered in this condition" to "A statement showing compliance status with this condition" to clarify the information to be included in the quarterly reports.
AQ-29	AQ-36	Same	Matches PTO	Same
AQ-30	AQ-19	Same	Matches PTO	Staff proposes to change "The information gathered in this condition" to "A summary of exceedances, if any, and a statement showing compliance status with this condition" to clarify the information to be included in the quarterly reports.
AQ-31	AQ-11	Same	Matches PTO	For the verification of the condition, staff proposes to keep the requirement of maintaining records for emission concentrations in parts per million by volume on a dry basis (ppmvd) because the limits specified in the condition are in ppmvd. Staff also proposes to change "The information gathered in this condition" to "A summary of exceedances, if any, and a statement showing compliance status with this condition" to clarify the information to be included in the quarterly reports.
AQ-32	AQ-14	Same	Matches PTO	Same as above
AQ-33	AQ-15	Same	Matches PTO	Same as above
AQ-34	AQ-16	Same	Matches PTO	The two sets of emission limits in this condition and the next condition (AQ-35) were previously approved to be based on whether the duct burner is fired. The District has changed these

Approved COCs Numbering	Facility Owner Proposed COCs Numbering	Staff Proposed COCs Numbering	Facility Owner Proposed Modifications and Justification	Staff Proposed Modifications and Justification
				conditions to be based on whether the heat input of the duct burner is below or above 38.8 MMBtu/hr. Staff proposes to change the verifications of these conditions accordingly. Staff also proposes to change "The information gathered in this condition" to "A summary of exceedances, if any, and a statement showing compliance status with this condition" to clarify the information to be included in the quarterly reports.
AQ-35	AQ-17	Same	Matches PTO	Same as above
AQ-36	AQ-20	Same	Matches PTO	Staff proposes to change "information gathered in this condition" to "fuel consumption by the duct burners for both turbines for each rolling 12-month period" to clarify the information to be included in the quarterly reports.
AQ-37	AQ-21	Same	Matches PTO	The approved condition AQ-37 did not have verification. Staff proposes to use similar verification from approved condition AQ-38. But instead of maintaining records of duration (required by approved AQ-38), staff proposes to require maintaining records of mass emissions according to the limits specified in this condition. Staff also proposes to change "The information gathered in this condition" to "A summary of exceedances, if any, and a statement showing compliance status with this condition" to clarify the information to be included in the quarterly reports.
AQ-38	AQ-22	Same	Matches PTO	Staff proposes to change "The information gathered in this condition" to "A summary of exceedances, if any, and a statement showing compliance status with this condition" to clarify the information to be included in the quarterly reports.
AQ-39	AQ-23	Same	Matches PTO	Since the proposed condition AQ-23 combines both approved conditions AQ-21 and AQ-39, staff

Approved COCs Numbering	Facility Owner Proposed COCs Numbering	Staff Proposed COCs Numbering	Facility Owner Proposed Modifications and Justification	Staff Proposed Modifications and Justification
				proposes to combine the verifications for both approved conditions AQ-21 and AQ-39 to require maintaining records of both the duration and the NOx emission concentrations of all startups. Staff also proposes to change “The information gathered in this condition” to “A summary of exceedances, if any, and a statement showing compliance status with this condition” to clarify the information to be included in the quarterly reports.
AQ-40	AQ-25	Same	Matches PTO	Staff proposes to change “The information gathered in this condition” to “A statement showing compliance status with this condition” to clarify the information to be included in the quarterly reports.
AQ-41	AQ-26	Same	Matches PTO	Staff also proposes to change “The information gathered in this condition” to “A statement showing compliance status with this condition” to clarify the information to be included in the quarterly reports.
AQ-42	AQ-49	Same	Matches PTO	The condition was moved to end of permit and the language for auxiliary boiler was deleted. For the verification of the condition, staff proposes to change “The information gathered in this condition” to “The startup and shutdown log” to clarify the information to be included in the quarterly reports.
AQ-43	AQ-18	Same	Matches PTO	This condition refers to annual source testing requirements and AQ-37. But the annual source testing requirements are specified in proposed condition AQ-39 (i.e. approved condition AQ-55), not AQ-37. Staff proposes to change the reference from AQ-37 to AQ-39 at the end of the condition and the District engineer agrees. Staff also proposes to delete the reference to the initial compliance test in the verification of the condition because the initial

Approved COCs Numbering	Facility Owner Proposed COCs Numbering	Staff Proposed COCs Numbering	Facility Owner Proposed Modifications and Justification	Staff Proposed Modifications and Justification
				compliance test was completed.
AQ-44	Deleted	Same	No more auxiliary boiler	Same
AQ-45	Deleted	Same	No more auxiliary boiler	Same
AQ-46	Deleted	Same	No more auxiliary boiler	Same
AQ-47	Deleted	Same	No more auxiliary boiler	Same
AQ-48	Deleted	Same	No more auxiliary boiler	Same
AQ-49	Deleted	Same	No more auxiliary boiler	Same
AQ-50	Deleted	Same	No more auxiliary boiler	Same
AQ-51	Deleted	Same	No more auxiliary boiler	Initial source testing was completed
AQ-52	AQ-57	Deleted	Moved to end of permit	Staff proposes to delete this condition since initial source testing for hazardous air pollutants was completed and the current District permit doesn't include this condition.
AQ-53	Deleted	Same	Commissioning period is completed	Same
AQ-54	Deleted	Same	Commissioning period is completed	Same
AQ-55	AQ-39	Same	Matches PTO	Staff proposes to replace the facility owner proposed incorrect reference to a list of conditions from "AQ-34, 10, and 37" to "AQ-11, 14, 15, 17, 18, and 19", which would match the PTO.
AQ-56	AQ-5	Same	Matches PTO	The facility owner proposed verification just repeats the approved AQ-56 itself, which might be a typographical error. Staff proposes to keep the previously approved verification for this condition except changing "information gathered in this condition" to "HAPs emissions summarized for each rolling 12 calendar month period" to clarify the information to be included in the quarterly reports.
AQ-57	Deleted	Same	No longer applicable	Same

Approved COCs Numbering	Facility Owner Proposed COCs Numbering	Staff Proposed COCs Numbering	Facility Owner Proposed Modifications and Justification	Staff Proposed Modifications and Justification
AQ-58	AQ-42	Same	Matches PTO	Same
AQ-59	AQ-43	Same	Matches PTO	For the verification of this condition, the facility owner proposes to delete the requirement of submitting MERC monitoring reports to the District and the Compliance Project Manager (CPM) on or before March 1 of each calendar year. Staff proposes to keep this requirement so that both the District and the Energy Commission can continue to monitor compliance with this condition.
AQ-60	Deleted	Same	Condition was deleted in prior Energy Commission amendment	Same
AQ-61	AQ-44	Same	Matches PTO	In the verification of the condition, the facility owner proposes to delete the requirement of submitting quarterly reports to the Energy Commission for this condition (regarding whether the 1.0 ppm NOx has been achieved or whether additional emission reduction credits have been surrendered to the District). Staff proposes to require submitting a statement showing compliance status with this condition in the quarterly reports.
AQ-62	AQ-28	Same	Matches PTO	Staff proposes to change "The information gathered in this condition" to "A statement showing compliance status with this condition" to clarify the information to be included in the quarterly reports.
AQ-63	AQ-51	AQ-29	Moved to end of permit	Staff noticed that the approved AQ-63 is almost identical to the PTO condition 29 except for two words. Instead of moving it to the end of the permit, staff proposes to change the condition so that it matches PTO and renumber it as AQ-29. For the verification of the condition, staff proposes to change "The information gathered

Approved COCs Numbering	Facility Owner Proposed COCs Numbering	Staff Proposed COCs Numbering	Facility Owner Proposed Modifications and Justification	Staff Proposed Modifications and Justification
				in this condition” to “A statement showing compliance status with this condition” to clarify the information to be included in the quarterly reports.
AQ-64	AQ-38	Same	Matches PTO	Same
AQ-65	Deleted	Same	No longer applicable, Title IV application already submitted	Same
AQ-66	AQ-50	Deleted	Moved to end of permit	The current PTO condition 30 (proposed AQ-30) replaces approved conditions AQ-13 and AQ-66 regarding CEMS regulations. Staff proposes to delete the approved conditions AQ-13 and AQ-66.
AQ-67	Deleted	Same	No longer applicable, Title V application already submitted	Same
None	AQ-3	Same	New	Same
None	AQ-4	Same	New	Same
None	AQ-7	Same	New	Same
None	AQ-8	Same	New	Same
None	AQ-12	Same	New	For the verification of the condition, staff proposes to require maintaining records of emission concentrations in parts per million by volume on a dry basis (ppmvd) in addition to the facility owner proposed requirement of maintaining records of total aggregate mass emissions in tons per year because the limits specified in the condition are in ppmvd. Staff also proposes to change “The information gathered in this condition” to “A summary of exceedances, if any, and a statement showing compliance status with this condition” to clarify the information to be included in the quarterly reports.
None	AQ-13	Same	New	Staff proposes to change “The information gathered in this condition” to “Excess emissions reports” to clarify the information

Approved COCs Numbering	Facility Owner Proposed COCs Numbering	Staff Proposed COCs Numbering	Facility Owner Proposed Modifications and Justification	Staff Proposed Modifications and Justification
				to be included in the quarterly reports.
None	AQ-24	Same	New	For the verification of the condition, staff proposes to require maintaining records of the NOx emission concentrations in addition to the records of duration of all startups since the condition specifies concentration limits as well as duration of startups. Staff also proposes to change "The information gathered in this condition" to "A summary of exceedances, if any, and a statement showing compliance status with this condition" to clarify the information to be included in the quarterly reports.
None	AQ-27	Same	New	Same
None	AQ-30	Same	New	Staff proposes to add the last part of the last sentence in the condition that was missing in the facility owner proposed changes so that it matches the PTO. For the verification of the condition, staff proposes to change "The information gathered in this condition" to "A statement showing compliance status with this condition" to clarify the information to be included in the quarterly reports.
None	AQ-31	Same	New	For the verification of the condition, staff proposes to change "The information gathered in this condition" to "A statement showing compliance status with this condition" to clarify the information to be included in the quarterly reports.
None	AQ-32	Same	New	For the verification of the condition, staff proposes to change "The information gathered in this condition" to "Any violation of any emission standard as indicated by the CEMS" to clarify the information to be included in the quarterly reports.
None	AQ-33	Same	New	Same
None	AQ-35	Same	New	Same

Approved COCs Numbering	Facility Owner Proposed COCs Numbering	Staff Proposed COCs Numbering	Facility Owner Proposed Modifications and Justification	Staff Proposed Modifications and Justification
None	AQ-40	Same	New	For the verification of the condition, the facility owner only proposes to make records of the source test protocols available for inspection. Staff proposes to add the requirement of submitting the source test protocol to the District and the Energy Commission 30 days prior to the test date so that the Energy Commission will be informed of the source tests before they are conducted.
None	AQ-41	Same	New	For the verification of the condition, the facility owner only proposes to make records of the source test reports available for inspection. Staff proposes to add the requirement of submitting the test reports to the District and the Energy Commission 45 days after completion of the tests so that both the District and the Energy Commission can review the reports and monitor compliance.

Source: OMEC 2014 and Energy Commission staff analysis

CONCLUSIONS AND RECOMMENDATIONS

The proposed modifications would not affect Otay Mesa's ability to continue to comply with applicable federal, state, and SDAPCD air quality LORS. The proposed modifications would not result in significant air quality or GHG related impacts, provided that the following COCs are included. There are no air quality environmental justice issues related to this amendment request and no minority or low-income populations would be significantly or adversely impacted. Staff recommends that the revised COCs be approved as shown below.

PROPOSED MODIFICATIONS TO CONDITIONS OF CERTIFICATION

Below is a list of those COCs that must be revised from those in effect as of the 2009 Commission Order (CEC 2009). For completeness, all Air Quality COCs are shown, those that need changes and those that do not change. Based upon the facility owner proposed changes, staff proposes renumbering and consolidating some COCs as appropriate to streamline the conditions. The COCs listed below are based upon staff-proposed numbering. These changes in the COCs match the current SDAPCD permit requirements. ~~Strikethrough~~ is used to indicate deleted language and **underline and bold** is used for new language. **Appendix 1** includes a clean version of the finalized COCs if they are approved.

ENERGY COMMISSION STAFF CONDITIONS

These conditions are not included in the District's ~~Determination of Compliance~~ Permit to Operate (PTO). Although construction is complete, the construction conditions (AQ-SC1 through AQ-SC5) with Tables 1 through 3 are retained as needed to control any future construction activities. Conditions for mitigation (AQ-SC6 and AQ-SC7), conditions for the Wet Surface Air Cooler (AQ-SC8 and AQ-SC9), and the condition requiring submission of permit changes (AQ-SC10) are retained for on-going operations.

For the purposes of these conditions, the following definitions apply:

- (1) ACTIVE OPERATIONS shall mean any activity capable of generating fugitive dust, including, but not limited to, earth-moving activities, construction/ demolition activities, or heavy- and light-duty vehicular movement.
- (2) CHEMICAL STABILIZERS mean any non-toxic chemical dust suppressant which must not be used if prohibited for use by the Regional Water Quality Control Boards, the California Air Resources Board, the U.S. Environmental Protection Agency (U.S. EPA), or any applicable law, rule or regulation; and should meet any specifications, criteria, or tests required by any federal, state, or local water agency. Unless otherwise indicated, the use of a non-toxic chemical stabilizer shall be of sufficient concentration and application frequency to maintain a stabilized surface.
- (3) CONSTRUCTION/DEMOLITION ACTIVITIES are any on-site mechanical activities preparatory to or related to the building, alteration, rehabilitation, demolition or improvement of property, including, but not limited to the following activities; grading, excavation, loading, crushing, cutting, planing, shaping or ground breaking.
- (4) DISTURBED SURFACE AREA means a portion of the earth's surface which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for emission of fugitive dust.
- (5) DUST SUPPRESSANTS are water, hygroscopic materials, or non-toxic chemical stabilizers used as a treatment material to reduce fugitive dust emissions.
- (6) EARTH-MOVING ACTIVITIES shall include, but not be limited to, grading, earth cutting and filling operations, loading or unloading of dirt or bulk materials, adding to or removing from open storage piles of bulk materials, landfill operations, or soil mulching.

(7) FUGITIVE DUST means any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of man.

(8) INACTIVE DISTURBED SURFACE AREA means any disturbed surface area upon which active operations have not occurred or are not expected to occur for a period of ten consecutive days.

(9) STABILIZED SURFACE means:

(A) any disturbed surface area or open storage pile which is resistant to wind-driven fugitive dust;

(B) any unpaved road surface in which any fugitive dust plume emanating from vehicular traffic does not exceed 20 percent opacity.

(10) VISIBLE ROADWAY DUST means any sand, soil, dirt, or other solid particulate matter which is visible upon paved road surfaces and which can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.

AQ-SC1. The project owner shall implement a CEG **California Energy Commission** CPM approved fugitive Dust Control Plan.

Protocol: The plan shall include the following:

1. A description of each of the active operation(s) which may result in the generation of fugitive dust;
2. An identification of all sources of fugitive dust (e.g., earth-moving, storage piles, vehicular traffic, etc).
3. A description of the control measures to be applied to each of the sources of dust emissions identified above (including those required in AQ-SC2 and –SC3 below). The description must be sufficiently detailed to demonstrate that the applicable best available control measure(s) as specified in Table 1 (attached) will be utilized and/or installed during all periods of active operations;
4. In the event that there are special technical (e.g., non-economic) circumstances, including safety, which prevent the use of at least one of the required control measures for any of the sources identified, a justification statement must be provided to explain the reason(s) why the required control measures cannot be implemented.

Verification: Not later than sixty (60) days prior to the commencement of construction, the project owner shall submit the plan to the CEG **California Energy Commission** CPM for review and approval. The project owner shall maintain daily records to document the specific actions taken pursuant to the plan and Table 1. A summary of the monthly activities shall be submitted to the CPM via the Monthly Compliance Report.

AQ-SC2. During the construction phase of the project, the project owner shall:

1. Prevent or remove within one hour the track-out of bulk material onto public paved roadways as a result of their operations, or take at least one of the actions listed in Table 2 (attached) to prevent the track-out of bulk material onto public paved roadways as a result of their operations and remove such material at anytime track-out extends for a cumulative distance of greater than 50 feet on to any paved public road during active operations;
2. Install and use a track-out control device to prevent the track-out of bulk material from areas containing soils requiring corrective to other areas within the project construction site and laydown area;
3. Minimize fugitive particulate emissions from vehicular traffic on paved roads and paved parking lots on the construction site by vacuum mechanical sweeping or water flushing of the road surface to remove buildup of loose material. The project owner shall inspect on a daily basis the conditions of the paved roads and parking lots to determine the need for mechanical sweeping or water flushing.

Verification: The project owner shall maintain a daily log during the construction phase of the project indicating: 1) the manner in which compliance with this condition or Table 2 is achieved, and 2) the date and time when the inspection of paved roads and parking lots occurs and the date and time(s) when the cleaning operation occurs. The logs shall be made available to the California Energy Commission CPM upon request.

AQ-SC3. At any time when fugitive dust from ~~OMGP~~ project construction is visible in the atmosphere beyond the property line, the project owner will identify the source of the fugitive dust and implement one or more of the appropriate control measures specified in Table 3 (attached)

Verification: The project owner will maintain a daily log recording the dates and times that measures in Table 3 (attached) have been implemented and make them available to the CPM upon request.

AQ-SC4. The project owner shall implement an approved Construction Equipment Plan. The Plan shall identify how the project owner will ensure that all heavy equipment, that includes, but is not limited to, bulldozers, backhoes, compactors, loaders, motor graders and trenchers, and cranes, dump trucks and other heavy duty construction related trucks, used on-site by construction contractors and subcontractors:

- a. are properly maintained;
- b. use low sulfur diesel fuel, 50 ppm sulfur or less;
- c. limit idling times; and
- d. meet federal emission standards for construction equipment.

Verification: Not later than sixty (60) days prior to the commencement of construction, the project owner shall submit the plan to the California Energy Commission CPM for review and approval. The project owner shall maintain records to

document the specific actions taken pursuant to the plan. A summary of the monthly activities shall be submitted to the CPM via the Monthly Compliance Report.

AQ-SC5. The project owner shall ensure that all heavy earthmoving equipment including, but not limited to, bulldozers, backhoes, compactors, loaders, motor graders and trenchers, and cranes, dump trucks and other heavy duty construction related trucks, have been properly maintained and the engines tuned to the engine manufacturer's specifications. The project owner shall also install oxidizing soot filters on all suitable construction equipment used either on the power plant construction site or associated linear construction sites. Where the oxidizing soot filter is determined to be unsuitable, the owner shall install and use an oxidizing catalyst. Additionally, the project owner shall employ high pressure fuel injection, timing retardation, and reduced idle time on all suitable construction equipment. Suitability is to be determined by an independent California Licensed Mechanical Engineer or a Qualified Environmental Professional who will stamp and submit for approval an initial and all subsequent Suitability Reports as necessary containing at a minimum the following:

Initial Suitability Report:

- The initial suitability report shall be submitted to the CPM for approval 60 days prior to the relevant equipment being used at the project site.
- A list of all fuel burning, construction related equipment used,
- a determination of the suitability of each piece of equipment to work appropriately with an oxidizing soot filter, or an oxidizing catalyst,
- if a piece of equipment is determined to be suitable, a statement by the equipment or catalyst manufacturers, the independent California Licensed Mechanical Engineer, or a Qualified Environmental Professional that the oxidizing soot filter has been installed and is functioning properly,
- if a piece of equipment is determined to be unsuitable, an explanation by the equipment or catalyst manufacturers, the independent California Licensed Mechanical Engineer, or a Qualified Environmental Professional as to the cause of this determination, and
- a statement by the equipment or catalyst manufacturers, the California Licensed Mechanical Engineer, or a Qualified Environmental Professional as to the suitability of using high-pressure fuel injectors, timing retardation and/or reduced idle time on all construction equipment after the installation of either oxidizing soot filters or oxidizing catalysts.

Subsequent Suitability Reports

- If a piece of construction equipment is subsequently determined to be unsuitable for an oxidizing soot filter after such installation has occurred, the filter may be removed immediately. However notification

must be sent to the CPM for approval containing an explanation for the change in suitability within 10 days.

- Changes in suitability are restricted to three explanations, which must be identified in any subsequent suitability report. Changes in suitability may not be based on the use of high-pressure fuel injectors, timing retardation and/or reduced idle time.
 1. The oxidizing soot filter is reducing normal availability of the construction equipment due to increased downtime, and/or power output due to increased back pressure by 20% or more.
 2. The oxidizing soot filter is causing or reasonably expected to cause significant damage to the construction equipment engine.
 3. The oxidizing soot filter is causing or reasonably expected to cause a significant risk to nearby workers or the public.

Changes in suitability may not be based on the use of high-pressure fuel injectors, timing retardation and/or reduced idle time.

Verification: The project owner shall submit to the CPM, via the Monthly Compliance Report, documentation, which demonstrates that the contractor's heavy earthmoving equipment is properly maintained and the engines are tuned to the manufacturer's specifications. The project owner shall maintain all records on the site for six months following the start of commercial operation. The project owner will submit to the CPM for approval, the initial suitability report stamped by an independent California Licensed Mechanical Engineer or a Qualified Environmental Professional, 60 days prior to breaking ground on the project site. The project owner will submit to the CPM for approval, subsequent suitability reports as required, stamped by an independent California Licensed Mechanical Engineer or a Qualified Environmental Professional, no later than 10 working day following a change in the suitability status of any construction equipment.

AQ-SC6. The owner/operator shall provide a mitigation fee, for potential PM10 and PM10 precursor impacts, to the District APCO to provide PM10 and PM10 precursor reductions throughout the District. The amount of the fee shall equal \$1.2 million escalated at a rate equal to the Consumer Price Index from October 31, 2003 until the payment is made. The payment shall be made no later than 14 months prior to "first fire" of either turbine, or October 31, 2006, whichever is first. The fees shall be provided to the District, who with guidance from CARB or the GEG **California Energy Commission**, will allocate the funds to programs such as the Lower-Emission School Bus Retrofit Program, the Carl Moyer program, or some other program designed to reduce PM10 and PM10 precursor emission in the District.

The District shall preferentially make available the mitigation fee funds to the Sweetwater Union High, the San Ysidro Elementary, the South Bay Elementary, or the Chula Vista Elementary Districts for school bus retrofits. The preference shall be in the form of a first right of refusal given to the

above districts for no more than 2 years from the date of the first fee payment by the project owner. Any mitigation fee funds not used by the above school districts or available after 2 years from the date of the first fee payment by the project owner shall be made available for other program-appropriate emission reductions through the District's program.

Verification: No later than 20 days after delivery of the mitigation payment to the District, the project owner/operator shall provide to the ~~CEC~~ **California Energy Commission** CPM a letter (or copy thereof) from the District APCO indicating receipt of the payment.

AQ-SC7. The owner/operator shall assign to the project all PM10, VOC and SOX emission reductions that occur intentionally or incidentally during the formation of the NOx MERC for the project. The PM10, VOC and SOX emission reductions are part of the PM10 and PM10 precursor mitigation for the project.

Verification: The owner/operator shall provide a letter assigning to the project, and for the life of the project, all PM10, VOC and SOX emission reductions that occur intentionally or incidentally during the formation of the project's NOx MERCs. The letter shall be provided to the ~~CEC~~ **California Energy Commission** CPM with the surrender of the ERC and MERC certificates ~~identified in Condition AQ-57.~~

AQ-SC8. The emissions of particulate matter less than 10 microns (PM10) from the Wet Surface Air Cooler shall not exceed 0.1 lbs/hr, based on design specifications limiting circulating water flow rates to no more than 5 million gallons per hour and warranties limiting drift to no more than 0.0006%.

Verification: The project owner shall provide copies of Wet Surface Air Cooler specifications and a vendor warranty of the drift efficiency to the ~~CEC~~ **California Energy Commission** CPM 60 days prior to WSAC equipment delivery on-site.

AQ-SC9. Compliance with the WSAC PM10 emission limit shall be determined by circulating water sample analysis by independent laboratory within 60 days of initial operation and quarterly thereafter.

Verification: The results and field data collected from cooling tower blowdown water samples analysis shall be submitted to the CPM and the District as part of the quarterly reports required in Condition AQ-~~3864~~.

AQ-SC10. The project owner shall submit to the CPM for review and approval any modification proposed by the project owner to any project air permit. The project owner shall submit to the CPM any modification to any permit proposed by the District or EPA, and any revised permit issued by the District or EPA, for the project.

Verification: The project owner shall submit any proposed air permit modification to the CPM within five working days of its submittal either by 1) the project owner to an agency, or 2) receipt of proposed modifications from an agency. The project owner shall submit all modified air permits to the CPM within 15 days of receipt.

Staff moved Tables 1 through 3 up because Conditions of Certification AQ-SC1, AQ-SC2, and AQ-SC3 referred to them and they are not included in the district's PTO.

**Table 1
Best Available Fugitive Dust Control Measures**

Fugitive Dust Source Category	Control Actions
Earth-moving (except construction cutting and filling areas, and mining operations)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the CEC California Energy Commission CPM. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.
Earth-moving: Construction fill areas:	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the CEC California Energy Commission CPM. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the CEC California Energy Commission CPM, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.
Earth-moving: Construction cut areas and mining operations:	Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.
Disturbed surface areas (except completed grading areas)	Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.
Disturbed surface areas: Completed grading areas	Apply chemical stabilizers within five working days of grading completion; OR Take actions (3a) or (3c) specified for inactive disturbed surface areas.
Inactive disturbed surface areas	Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR

Fugitive Dust Source Category	Control Actions
	Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.
Unpaved Roads	Water all roads used for any vehicular traffic at least once per every two hours of active operations; OR Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.
Open storage piles	Apply chemical stabilizers; OR Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR Install temporary coverings; OR Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile.
ALL CATEGORIES	Any other control measures approved by the CEG California Energy Commission CPM as equivalent to the methods specified in Table 1 may be used.

Table 2
Track-Out Control Options

(1)	Pave or apply chemical stabilization at sufficient concentration and frequency to maintain a stabilized surface starting from the point of intersection with the public paved surface, and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.
(2)	Pave from the point of intersection with the public paved road surface, and extending for a centerline distance of at least 25 feet and a width of at least 20 feet, and install a track-out control device immediately adjacent to the paved surface such that exiting vehicles do not travel on any unpaved road surface after passing through the track-out control device.
(3)	Any other control measures approved by the CEG California Energy Commission CPM as equivalent to the methods specified in Table 2 may be used.

**Table 3
Control Measures for Wind Conditions Exceeding 25 Mph**

FUGITIVE DUST SOURCE CATEGORY	CONTROL MEASURES
Earth-moving	Cease all active operations; OR
	Apply water to soil not more than 15 minutes prior to moving such soil.
Disturbed surface areas	On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR
	Apply chemical stabilizers prior to wind event; OR
	Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR
	Take the actions specified in Table 1, Item (3c); OR
	Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	Apply chemical stabilizers prior to wind event; OR
	Apply water twice [once] per hour during active operation; OR
	Stop all vehicular traffic.
Open storage piles	Apply water twice [once] per hour; OR
	Install temporary coverings.
Paved road track-out	Cover all haul vehicles; OR
	Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.
All Categories	Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.

DISTRICT OTAY MESA GENERATING FDOC ENERGY CENTER PTO CONDITIONS

General Conditions

AQ-1. Operation of this equipment shall be conducted in accordance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.

Verification: The project owner shall make the site available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission.

AQ-2. This equipment shall be properly maintained and kept in good operating condition at all times.

Verification: The project owner shall make the site and records available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission.

AQ-3. The unit shall be fired on Public Utility Commission (PUC) quality natural gas only. The project owner shall maintain quarterly records of sulfur content (grains/100 dscf) and higher and lower heating values (Btu/dscf) of the natural gas and provide such records to the District personnel upon request.

Verification: The project owner shall make the records available for inspection by representatives of the District, ARB and the Commission.

~~AQ-8. This equipment shall be fired on natural gas only. The sulfur content of the natural gas used shall not exceed 0.75 grains per 100 standard cubic feet of natural gas. The applicant shall maintain quarterly records of fuel sulfur content (grains of sulfur compounds per 100 scf of natural gas) and higher heating value (Btu/scf) and shall make these records available to District personnel upon request. Specifications, including sulfur content and higher heating value, of all natural gas, other than Public Utility Commission (PUC)-regulated natural gas, shall be submitted to the District for written approval prior to use.~~

~~**Verification:** These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition shall be included in the quarterly reports required in Condition AQ-64.~~

AQ-4. The project owner shall comply with all the applicable provisions of 40 CFR 73, including requirements to offset, hold and retire SO₂ allowances.

Verification: The project owner shall make the records available for inspection by representatives of the District, ARB and the Commission.

Construction (At Or Prior To Initial Firing) Conditions

~~AQ-5. At least 90 days prior to on-site delivery of the equipment, the applicant shall submit to the District the final selection and design details of the gas turbines and associated equipment to be installed, including all proposed post-combustion control systems and the auxiliary boiler. Such information may be submitted to the District as Trade Secret and confidential pursuant to District Rules 175 and 176.~~

~~**Verification:** The project owner shall provide copies of design details of the gas turbines and associated equipment to be installed, including all proposed post-~~

combustion control systems (SCONOx or SCR) to the CPM and the District at least 90 days prior to the start of rough grading.

AQ-5. ~~AQ-56.~~ The emissions of any single federal hazardous air pollutant **(HAP) shall not equal or exceed 10 tons**, and the aggregate of all federal hazardous air pollutants **HAPs**, shall not equal or exceed 40 tons or 25 tons, respectively, in any continuous **rolling** 12 calendar month period. **Compliance with the HAP limits shall be based on a surrogate VOC/HAP correlation factor determined during initial source testing.** If emissions exceed these limits, the permittee **project owner** shall apply to amend these limits **this permit to reflect applicable** and conduct a case-by-case **Federal** Maximum Achievable Control Technology (MACT) analysis **standards and requirements** in accordance with applicable federal EPA regulations **provisions (including timing requirements) of 40 CFR 63.**

Verification: The project owner shall maintain records of the mass emissions of hazardous air pollutants of each gas turbine when operating. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition **HAPs emissions summarized for each rolling 12 calendar month period** shall be included in the quarterly reports required in Condition AQ-~~38~~64.

AQ-6. ~~AQ-3.~~ The permittee shall provide a **Access, facilities, utilities, and any necessary safety equipment for source testing and inspection shall be provided** upon request of the Air Pollution Control District.

Verification: The project owner shall make the site and records available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission.

AQ-7. **The Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.**

Verification: **The project owner shall make the site and records available for inspection by representatives of the District, ARB and the Commission.**

AQ-8. **The project owner shall, upon determination of applicability and written notification by the District, comply with all applicable requirements of the Air Toxics "Hot Spots" Information and Assessment Act (California Health and Safety Code Section 44300 et seq.)**

Verification: **The project owner shall make the records available for inspection by representatives of the District, ARB and the Commission.**

~~**AQ-9.** Prior to initial firing of each turbine, a Continuous Emission Monitoring System (CEMS) shall be installed and calibrated to measure the concentrations of oxides of nitrogen (NO_x), carbon monoxide (CO), and oxygen (O₂) in the exhaust gas on a dry basis, corrected to 15% oxygen. Upon initial firing, the permanent CEMS system, which has been properly calibrated, shall be operational. At least 60 days prior to the operation of the permanent CEMS, the applicant shall submit an operating protocol to the District for written approval. The CEMS shall remain in full operation at all times when the turbine is in operation. The permanent CEMS shall be properly installed, certified, and in full operation prior to on-going operations.~~

~~**Verification:** The project owner shall provide copies of the operating protocol for the CEMS system to the District, for written approval, and to the CPM at least 60 days prior to operation of the CEMS system.~~

~~**AQ-9.** **AQ-16.** The total aggregate annual emissions from all emission units at the stationary source shall not exceed 100 tons of oxides of nitrogen (NO_x), calculated as nitrogen dioxide, and shall not exceed 316 tons of carbon monoxide (CO) for each consecutive 12-calendar month period. The NO_x and CO emissions shall begin accruing at the initial firing of each turbine. Compliance with this limit shall be verified using the CEMS system on each gas turbine (Application Nos. 973880 and 973881) as well as EPA- or ARB-certified NO_x emissions factors, testing results, or other representative emissions information for all other combustion equipment, including the auxiliary boiler.~~

~~**Verification:** The project owner shall maintain records, at least on a calendar monthly basis, of total aggregate mass emissions of NO_x, and CO, and VOC in tons per year, from all equipment, excluding exempt equipment, at this stationary source for the previous 12-month period. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition total aggregate annual emissions of NO_x and CO summarized for each consecutive 12-calendar month period shall be included in the quarterly reports required in Condition AQ-3864.~~

~~**AQ-10.** At least 60 days prior to initial firing of the gas turbines, the applicant shall submit a protocol to the District, for written approval, that shows how the permanent CEMS will be able to meet all District monitoring requirements and measure NO_x emissions at a level of 1.0 ppmv plus or minus 10%. In the event that CEMS or testing technology to measure NO_x emissions at a level of 1.0 ppmv is not commercially available 60 days prior to initial startup, the applicant shall submit a report to the District regarding the status of the development of such technology. If the principal impediment to meeting the 10% relative~~

~~accuracy requirement is the test method, the applicant shall propose an alternative measurement technique, for District and US EPA approval. If the CEMS installed by the applicant is unable to meet the 10% relative accuracy requirement, the applicant shall include in the annual relative accuracy report to the District, a reassessment for the commercial availability status for the technology. If the technology for the CEMS to meet the required accuracy becomes commercially available, the applicant shall retrofit the CEMS with such technology within 1 year of becoming available.~~

Verification: ~~The project owner shall provide copies of the operating protocol for the CEMS system or a CEMS development status to the District, for written approval, and the CPM at least 60 days prior to the initial startup. If the principal impediment to meeting the 10% relative accuracy requirement is the test method, the applicant shall propose an alternative measurement technique, for District and US EPA approval. If the CEMS installed by the applicant is unable to meet the 10% relative accuracy requirement, the applicant shall include in the annual relative accuracy report to the District, a reassessment for the commercial availability status for the technology. If the technology for the CEMS to meet the required accuracy becomes commercially available, the applicant shall retrofit the CEMS with such technology within 1 year of becoming available.~~

AQ-10. ~~**AQ-17.** The total aggregate emissions of volatile organic compounds (VOC) from all emission units at the stationary source shall not exceed 47.5 tons for each consecutive 12-calendar month period. The VOC emissions shall begin accruing at the initial firing of each piece of equipment. Compliance shall be verified using testing results, EPA- or ARB-certified VOC emissions factors, and/or other representative emissions information for all other combustion equipment, including the auxiliary boiler.~~

Verification: ~~The project owner shall maintain records, at least on a calendar monthly basis, of total aggregate mass emissions of NO_x, and CO, **and VOC** in tons per year, from all equipment, excluding exempt equipment, at this stationary source for the previous 12-month period. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition **total aggregate annual emissions of VOC summarized for each consecutive 12-calendar month period** shall be included in the quarterly reports required in Condition AQ-~~3864~~.~~

AQ-11. ~~At least 60 days prior to initial firing of the gas turbines, the applicant shall submit a protocol to the District for approval which shall specify a method for determining the CO/VOC surrogate relationship that shall be used to demonstrate compliance with all VOC emission limits.~~

Verification:—The project owner shall provide copies of the operating protocol for the CO/VOC surrogate relationship used to demonstrate compliance with all VOC limits to the District, for written approval, and the CPM at least 60 days prior to the initial firing of the gas turbines.

- AQ-11.** ~~AQ-31.~~ The emissions of oxides of nitrogen (NO_x) 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 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_x 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. ~~T~~this equipment operates under any one of the following:
 - i) ~~A~~) Rapid combustion turbine load changes due to the following conditions:
 - ~~A~~) ~~B~~) 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~~) ~~C~~) 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. ~~T~~the 1-hour average NO_x emissions above 2.0 ppmvd corrected to 15% oxygen did not occur as a result of operator neglect, improper operation or maintenance, ~~or~~ **and is a** qualified breakdown under District Rule 98.
 - c. ~~T~~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_x emissions exceeding the 2.0 ppmvd 1-hour average limit.
 - d. ~~T~~the 1-hour average NO_x concentration for periods that result from a qualified operating condition **described in (a) above** does not exceed 25 ppmvd corrected to 15% oxygen.

All NO_x emissions during these events shall be included in all calculations of hourly, daily, and annual mass emission rates as required by ~~this FDOC~~ the Permit to Operate.

Verification: The project owner shall maintain records, at least on a calendar monthly basis, of the total aggregate mass emissions (in tons per year) and concentrations (in ppmvd) of each gas turbine when operating of NO_x, CO, and VOC, from all equipment, excluding exempt equipment, at this stationary source for the previous 12-month period. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition, including documentation of compliance of any NO_x limit excursions that are allowed under this condition, A summary of exceedances, if any, and a statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-~~38~~64.

AQ-12. The emissions of oxides of nitrogen (NO_x) from each turbine, calculated as nitrogen dioxide, shall not exceed 110 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen. This limit shall apply at all times, including periods of startup and shutdown. Compliance with this limit shall be based on CEMS data for each unit as averaged in accordance with 40 CFR 60 Subpart GG Subsection 60.334.

Verification: The project owner shall maintain records, at least on a calendar monthly basis, of total aggregate mass emissions (in tons per year) and concentrations (in ppmvd) of NO_x, CO, and VOC, from all equipment, excluding exempt equipment, at this stationary source for the previous 12-month period. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. A summary of exceedances, if any, and a statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.

AQ-13. Excess emissions, as defined in 40 CFR 60 Subpart GG Subsection 60.334, shall be reported pursuant for all periods of unit operation, including startup, shutdown, and malfunction in accordance with 40 CFR 60 Subpart A Subsection 60.7(c). These reports shall be postmarked by the 30th day following the end of each calendar 6-month period unless more frequent reporting is required in accordance with 40 CFR 60 Subpart A Subsection 60.7(c). These reports shall be submitted to the District's Compliance Division.

Verification: These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. Excess emissions reports shall be included in the quarterly reports required in Condition AQ-38.

AQ-14. ~~**AQ-32.**~~ 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 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.

Verification: The project owner shall maintain records, **at least on a calendar monthly basis,** of the **total aggregate** mass emissions **(in tons per year)** and concentrations **(in ppmvd)** of each gas turbine when operating **of NOx, CO, and VOC, from all equipment, excluding exempt equipment, at this stationary source for the previous 12-month period.** These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition **A summary of exceedances, if any, and a statement showing compliance status with this condition** shall be included in the quarterly reports required in Condition AQ-~~38~~64.

~~**AQ-15.**~~ No later than 90 days after each unit commences commercial operation, a Relative Accuracy Test Audit (RATA) shall be performed on the permanent CEMS in accordance with 40 CFR Part 75 Appendix A Specifications and Test Procedures. At least 45 days prior to the test date, the applicant shall submit a test protocol to the District for written approval. Additionally, the District shall be notified a minimum of 45 days prior to the test so that observers may be present. Within 45 days of completion of this test, a written test report shall be submitted to the District for approval.

~~**Verification:**~~ The project owner shall provide copies of the CEMS RATA test to the District and the CPM no later than 90 days after each unit commences commercial operation. The project owner shall provide notice of the CEMS RATA test date and provide a CEMS RATA test protocol to the District and the CPM at least 45 days prior to the tests. The project owner shall provide a written CEMS RATA test report to the District, for approval, and the CPM within 30 days of the test.

AQ-15. ~~**AQ-33.**~~ 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 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.

Verification: The project owner shall maintain records, at least on a calendar monthly basis, of the total aggregate mass emissions (in tons per year) and concentrations (in ppmvd) of each gas turbine when operating of NOx, CO, and VOC, from all equipment, excluding exempt equipment, at this stationary source for the previous 12-month period. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition A summary of exceedances, if any, and a statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-~~38~~64.

AQ-16. ~~AQ-34.~~ When operated without the duct firing burner at or below 38.8 MMBtu/hr heat input, the emissions from each turbine shall not exceed the following emission limits, except during startup or shutdown conditions, as determined by the Continuous Emissions Monitoring System (CEMS) ~~and continuous monitors~~, the District approved CO/VOC surrogate relationship, and/or District approved emission source testing. Compliance with the NOx and CO limits shall be based on a continuous 3-hour averaging period and compliance with the VOC limit shall be based on a 1-hour averaging period.

<u>Pollutant</u>	<u>Emission Limit, lbs/hr</u>
Oxides of Nitrogen, NOx (calculated as NO ₂)	13.14
Carbon Monoxide, CO	24.0
Volatile Organic Compounds, VOC	4.58

Verification: The project owner shall maintain records of the mass emissions and concentrations of each gas turbine when operating without power augmentation the duct burner at or below 38.8 MMBtu/hr heat input. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition A summary of exceedances, if any, and a statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-~~38~~64.

AQ-17. ~~AQ-35.~~ When operated with the duct firing burner above 38.8 MMBtu/hr heat input, 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 continuous 3-hour averaging period and

compliance with the VOC limit shall be based on a 1-hour averaging period.

<u>Pollutant</u>	<u>Emission Limit, lbs/hr</u>
Oxides of Nitrogen, NO _x (calculated as NO ₂)	15.95
Carbon Monoxide, CO	29.13
Volatile Organic Compounds, VOC	5.56

Verification: The project owner shall maintain records of the mass emissions and concentrations of each gas turbine when operating with ~~power augmentation~~ **the duct burner above 38.8 MMBtu/hr heat input**. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ~~California Air Resources Board (CARB)~~ and the Commission. ~~The information gathered in this condition~~ **A summary of exceedances, if any, and a statement showing compliance status with this condition** shall be included in the quarterly reports required in Condition AQ-~~3864~~.

AQ-18. ~~AQ-43.~~ The emissions of particulate matter less than 10 microns (PM~~10~~₄₀) **from each turbine** shall not exceed 9.0 lbs/hr when operated without **the duct firing burner at or below 38.8 MMBtu/hr heat input** and shall not exceed 11.5 lbs/hr ~~for~~ **from** each turbine when operated with **the duct firing burner above 38.8 MMBtu/hr**. Compliance with this limit shall be based on ~~an initial emissions source test and at least annual source testing thereafter~~ **(only with the duct burner operating in accordance with AQ-39)**.

Verification: The project owner shall provide copies of the ~~initial compliance and annual source test reports to the District and the GEG~~ **California Energy Commission** CPM within 60 days after completion of the compliance or source tests.

AQ-19. ~~To ensure compliance with District Rule 69.2 and except during any period of time for which a variance from Rule 69.2 has been granted by the Air Pollution Control District Hearing Board, the emissions of oxides of nitrogen (NO_x), calculated as nitrogen dioxide, from the auxiliary boiler shall not exceed 30 parts per million by volume on a dry basis (ppmvd) calculated over a 1-hour averaging period and corrected to 3% oxygen and the emissions of carbon monoxide (CO) from the auxiliary boiler shall not exceed 400 parts per million by volume on a dry basis (ppmvd) calculated over a 1-hour averaging period and corrected to 3% oxygen.~~

Verification: ~~The project owner shall maintain records of the NO_x and CO emission concentrations from the auxiliary boiler for all operating conditions. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition shall be included in the quarterly reports required in Condition AQ-64.~~

AQ-19. ~~**AQ-30.**~~ **Except during startups and shutdowns,** 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. **Compliance with this limit shall be based on a District approved calculation methodology and verified during annual source testing.**

Verification: The project owner shall maintain records of the mass emissions and concentrations of each gas turbine when operating. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. ~~The information gathered in this condition~~ **A summary of exceedances, if any, and a statement showing compliance status with this condition** shall be included in the quarterly reports required in Condition AQ-~~38~~64.

AQ-20. ~~**AQ-36.**~~ Fuel consumption by the duct burners for both turbines shall not exceed 3,881,000 MMBtu (HHV) per rolling 12-month period. ~~Each time one or both turbines are operated with~~ **Whenever the duct firing burners are in operation,** the CEMS shall record the dates and fuel consumption for each duct burner. The CEMS shall also record the total duct burner fuel usage for each rolling 12-month period (in MMBtu). The applicant shall maintain a log that contains, at a minimum, the dates and fuel usage when one or both turbines are operated with duct firing. These records shall be maintained on site for a minimum of five years and made available to District personnel upon request.

Verification: The project owner shall maintain records of the mass emissions and concentrations of each gas turbine when operating with power augmentation. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. ~~The information gathered in this condition~~ **fuel consumption by the duct burners for both turbines for each rolling 12-month period** shall be included in the quarterly reports required in Condition AQ-~~38~~64.

AQ-21. ~~**AQ-37.**~~ 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:

<u>Pollutant</u>	<u>Emission Limit, lbs/hr</u>
Oxides of Nitrogen, NO _x (calculated as NO ₂)	240.0
Carbon Monoxide, CO	2706
Volatile Organic Compounds, VOC	48.0

Verification: The project owner shall maintain records of the mass emissions of NOx, CO, and VOC during startups of each gas turbine. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. A summary of exceedances, if any, and a statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.

~~AQ-22.~~ 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 1-hour period. These emissions limits shall apply during startups and shutdowns.

~~Verification:~~ The project owner shall maintain records of the NOx mass emissions of each gas turbine when operating without any post-combustion air pollution control equipment. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition shall be included in the quarterly reports required in Condition AQ-64.

AQ-22. ~~AQ-38.~~ When operated under startup or shutdown conditions, the emissions from each turbine shall not exceed the following emission limits, totaled per event, 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 (during startups)</u>	<u>Emission Limit, lbs/ event</u>
Oxides of Nitrogen, NOx (calculated as NO ₂)	480
Carbon Monoxide, CO	5412
Volatile Organic Compounds, VOC	96
<u>Pollutant (during shutdowns)</u>	<u>Emission Limit, lbs/ event</u>
Oxides of Nitrogen, NOx (calculated as NO ₂)	80
Carbon Monoxide, CO	902
Volatile Organic Compounds, VOC	16

Verification: The project owner shall maintain records of the duration startups and shutdowns of each gas turbine. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. ~~The information gathered in this condition~~ **A summary of exceedances, if any, and a statement showing compliance status with this condition** shall be included in the quarterly reports required in Condition AQ-~~38~~64.

~~AQ-23.~~ 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_x), calculated as nitrogen dioxide and averaged over a 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 NO_x, calculated as nitrogen dioxide and averaged over a rolling continuous 1-hour period. These emissions limits shall apply during startups and shutdowns.~~

~~Verification:— The project owner shall maintain records of the NO_x mass emissions of each gas turbine when operating without any post-combustion air pollution control equipment. These records shall be maintained on-site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition shall be included in the quarterly reports required in Condition AQ-64.~~

~~**AQ-23.** **AQ-39.** Startup for each gas turbine shall be defined as the period beginning with the introduction of fuel to the equipment **combustion turbine following a non-operational period** and ending **after the lesser of either 360 minutes of continuous fuel flow or** when the CEMS records ~~two~~ **ten** consecutive **one-minute** data points in compliance with the emission concentration limits of Conditions **AQ-1134, 14, and 19** for the gas turbine, ~~not to exceed 6.0 hours.~~ **Excluding extended startups and the first 120 minutes of all other startups, the gas turbines shall comply with a NO_x emission concentration limit of 11.8 ppmvd corrected to 15% oxygen. Compliance with this limit shall be based on CEMS data averaged over each one-hour period. For the purposes of this permit, an extended startup shall be defined as the time during any startup when the steam turbine inner casing temperature is less than or equal to 500 °F.**~~

~~Verification: The project owner shall maintain records of the duration **and the NO_x emission concentrations** of all startups of each gas turbine. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition **A summary of exceedances, if any, and a statement showing compliance status with this condition** shall be included in the quarterly reports required in Condition AQ-~~38~~64.~~

~~**AQ-21.** To ensure compliance with District Rule 69.3.1 and except during any period of time for which a variance from Rule 69.3.1 has been granted by the Air Pollution Control District Hearing Board, when operating with post-combustion air pollution control equipment, emissions of oxides of nitrogen (NO_x), calculated as nitrogen dioxide, from each turbine shall not exceed 11.8 parts per million by volume on a dry basis (ppmvd) calculated over a 1-hour averaging~~

period and corrected to 15% oxygen, excluding startups and shutdowns as defined in District Rule 69.3.1.

~~**Verification:**—The project owner shall maintain records of the NO_x emission concentrations of each gas turbine when operating with post-combustion air pollution control equipment. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition shall be included in the quarterly reports required in Condition AQ-64.~~

~~**AQ-24.**—The total emissions from both turbines combined shall not exceed 2738 pounds per hour of carbon monoxide (CO), averaged over a 1-hour period. These limits shall apply during startups and shutdowns.~~

~~**Verification:**—The project owner shall maintain records of the CO emission concentrations of each gas turbine when operating, including startup and shutdowns. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition shall be included in the quarterly reports required in Condition AQ-64.~~

AQ-24. During startups, including extended startups as defined in Condition AQ-23, excluding the first 120 minutes of the startup, NO_x emissions from the gas turbine shall not exceed 42 ppm corrected to 15% oxygen. Compliance with this limit shall be based on CEMS data averaged over each one-hour period.

Verification: The project owner shall maintain records of the duration and the NO_x emission concentrations of all startups of each gas turbine. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. A summary of exceedances, if any, and a statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.

Commissioning Period Conditions

~~**AQ-25.**—Beginning at initial firing of each turbine, a “Commissioning Period” for each turbine shall commence. This Commissioning Period shall end 120 days after initial firing or immediately after written acceptance of clear custody and control of the equipment is turned over to the applicant, whichever comes first. During this Commissioning Period, only the requirements specified in Condition Nos. AQ-9, 12, 16, 17, 18, 19, 20, 21, 22, 23, and 24 shall apply.~~

~~**Verification:**—The project owner shall maintain records of the mass emissions and concentrations of each gas turbine when operating during the commissioning period. These records shall be included in the Commissioning Period Progress Report required~~

in AQ-24, and maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission.

AQ-25. ~~AQ-40.~~ Shutdown for each gas turbine shall be defined as the **60-minute** period beginning when the CEMS records a single data point not in compliance with the emission concentration limits of Condition AQ-31 and ending with **preceding** the termination of fuel flow to the gas turbine, not to exceed 1.0 hours.

Verification: The project owner shall maintain records of the duration of all shutdowns of each gas turbine. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition **A statement showing compliance status with this condition** shall be included in the quarterly reports required in Condition AQ-~~3864~~.

AQ-26. ~~Within 30 operating days after initial firing of each turbine, the applicant shall install post-combustion air pollution control equipment to minimize emissions from this equipment. The applicant may request an extension, not to exceed an additional 30 days, in writing for District approval. This request shall include all technical reasons as to why the extension is needed. Such an extension will only be granted if the applicant can demonstrate that such extension:~~

- ~~(a) is not the result of neglect or disregard of any air pollution control requirement;~~
- ~~(b) is not intentional or the result of negligence, as defined in District Rule 98;~~
- ~~(c) is not the result of improper maintenance;~~
- ~~(d) will not cause a nuisance;~~
- ~~(e) is not likely to create an immediate threat or hazard to public health or safety;~~
- ~~(f) will not interfere with the attainment or maintenance of any National or California Ambient Air Quality Standard; and~~
- ~~(g) good cause is shown for the extension.~~

~~Once installed, the post-combustion air pollution control equipment shall be maintained in good condition and shall be in full operation at all times when the turbine is in operation. Note that any day in which fuel is burned in this equipment shall be considered an operating day.~~

Verification: ~~The project owner shall install post-combustion air pollution control equipment to minimize emissions from this equipment within 30 days after the initial firing of the gas turbines, unless the project owner requests an extension, not to exceed an additional 30 days, in writing for District approval.~~

AQ-26. ~~**AQ-41.**~~ Both gas turbines shall not be operated simultaneously in startup mode. Additionally, ~~the auxiliary boiler shall not be operated in startup mode simultaneously with either turbine.~~

Verification: The project owner shall maintain records of the duration of all startups of each gas turbine ~~and auxiliary boiler~~. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. ~~The information gathered in this condition~~ **A statement showing compliance status with this condition** shall be included in the quarterly reports required in Condition AQ-~~38~~64.

~~**AQ-27.** Within 10 days after the end of the Commissioning Period for each turbine, the applicant shall submit a written progress report to the District. This report shall include, at a minimum, the date that the Commissioning Period ended, the periods of startup, the emissions of NO_x and CO during startup, and the emissions of NO_x and CO during steady state operation with and without power augmentation. Emissions shall be in both ppmv and lbs/hr. This report shall also detail any turbine or emission control equipment malfunction, upsets, repairs, maintenance, modifications, or replacements affecting emissions of air contaminants that occurred during the Commissioning Period.~~

~~**Verification:** The project owner shall submit a Commissioning Period Progress Report for each gas turbine to the District and the CPM within 10 days after the end of each gas turbine commissioning period.~~

AQ-27. **For purposes of determining compliance based on source testing, the average of three subtests shall be used. For purposes of determining compliance with emission limits based on the CEMS, data collected in accordance with the CEMS protocol shall be used and averaging periods shall be as specified herein.**

Verification: **All records required by this written permit shall be maintained on site for a minimum of five years and made available to the District upon request.**

Conditions For On-Going Operations

AQ-28. ~~**AQ-62.**~~ 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 1-clock hour period using data collected at least once every 15 minutes when compliance is based on continuous emissions monitoring data. **A valid clock hour shall be defined as one that includes at least 16 minutes of valid 1-minute data or includes a data point from at least two different quadrants that are spaced at least 15 minutes apart. A duct**

burner clock hour shall be defined as a valid clock hour in which the duct burner heat input exceeds 38.8 MMBtu/hr.

Verification: The project owner shall maintain records of the mass emissions and concentrations of each gas turbine ~~during commissioning, startup/shutdown, and operation~~ **when operating**. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. ~~Quarterly reports shall be sent to the CEC CPM within 60 days after each calendar quarter.~~ **A statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.**

AQ-29. ~~**AQ-63.**~~ For each emission limit expressed as pounds per hour or parts per million based on a 3-hour averaging period, compliance shall be based on ~~each continuous~~ **rolling** 3-clock hour period, not including startup and shutdown periods, using data collected at least once every 15 minutes when compliance is based on continuous emissions monitoring data.

Verification: The project owner shall maintain records of the mass emissions and concentrations of each gas turbine ~~during commissioning, startup/shutdown, and operation~~ **when operating**. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. ~~Quarterly reports shall be sent to the CEC CPM within 60 days after each calendar quarter.~~ **A statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.**

AQ-30. **The Oxides of Nitrogen (NOx) and Oxygen (O₂) CEMs shall be certified and maintained in accordance with applicable Federal Regulations including the requirements of: -Sections 75.10 and 75.12 of Title 40 -Code of Federal Regulations Part 75 (40 CFR 75) -the performance specifications of Appendix A of 40 CFR 75 -the quality assurance procedures of Appendix B of 40 CFR 75 - the CEMs protocol approved by the District. The Carbon Monoxide (CO) CEMS shall be certified and maintained in accordance with 40 CFR 60 (40 CFR Part 75, 40 CFR Part 60), and a CEMS protocol approved by the District, unless otherwise specified in this permit.**

Verification: **The project owner shall maintain records of all CEMS certification and maintenance. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. A statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.**

~~**AQ-13.** All CEMS shall be certified, calibrated, maintained, and operated for the monitoring of NO_x and CO in accordance with applicable regulations including the requirements of Sections 60.7(c), 60.7(d), and 60.13 of Title 40 Code of Federal Regulations Part 60 (40 CFR 60), Performance Standards of Appendix B of 40 CFR 60, Quality Assurance Procedures of Appendix F of 40 CFR 60 and 40 CFR 75, and a protocol approved in writing by the District.~~

~~**Verification:**—These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition shall be included in the quarterly reports required in Condition AQ-64.~~

~~**AQ-66.** The applicant shall comply with the continuous emission monitoring requirements of 40 CFR Part 75.~~

~~**Verification:**—The project owner shall maintain records of the mass emissions and concentrations of each gas turbine when operating. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition shall be included in the quarterly reports required in Condition AQ-64.~~

AQ-31. When the CEMS is not recording data and the unit is operating, hourly NO_x emissions shall be determined in accordance with 40 CFR 75 Appendix C. Additionally, hourly CO emissions for the annual emission calculations shall be determined using the hourly emission rate recorded by the CEMS during the most recent hours in which the unit operated 3 continuous hours at no less than 80% of full power rating of each power station, either with or without duct firing.

Verification: The project owner shall maintain records of the mass emissions and concentrations of each gas turbine when operating. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. A statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.

AQ-32. Any violation of any emission standard as indicated by the CEMS shall be reported to the District's Compliance Division within 96 hours after such occurrence.

Verification: The project owner shall maintain records of any emissions exceedance of each gas turbine when operating. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. Any

violation of any emission standard as indicated by the CEMS shall be included in the quarterly reports required in Condition AQ-38.

AQ-33. The CEMs shall be maintained and operated, and reports submitted, in accordance with the requirements of Rule 19.2 Sections (D), (E), (F)(2), (F)(3), (F)(4) and (F)(5) and CEMs Protocol approved by the District.

Verification: The project owner shall make the records available for inspection by representatives of the District, ARB and the Commission.

AQ-34. ~~AQ-14.~~ The District shall be notified in writing at least two (2) weeks prior to any proposed changes to be made in any Continuous Emission Monitor (CEMS) software which that affects the measurement, calculation or correction of data displayed and/or recorded by the CEMS. value of data displayed on the CEM monitors with respect to the parameters measured by their respective sensing devices.

Verification: The project owner shall make the records available for inspection by representatives of the District, ARB and the Commission. The project owner shall document any such changes in the subsequent quarterly reports required in Condition AQ-38. ~~provide notices of any proposed changes made to the CEM software, which affects the value of data displayed on the CEM monitors with respect to the parameters measured by their respective sensing devices, to the District and the CPM at least two (2) weeks prior to the changes.~~

AQ-35. Operating logs or Data Acquisition System (DAS) records shall be maintained to record the following:

- a. dates of all startups and shutdowns;**
- b. beginning and end times, to the nearest minute, of all startups and shutdowns;**
- c. fuel usage, in standard cubic feet, for each clock hour, calendar month, and 12-calendar month period;**
- d. hours of daily operation; and**
- e. total cumulative hours per calendar year.**

Verification: The project owner shall make the records available for inspection by representatives of the District, ARB and the Commission.

AQ-36. ~~AQ-29.~~ Continuous monitors shall be installed on each turbine to monitor or calculate and record the following:

- a. gas turbine natural gas flow rate (scfh),**
- b. duct burner natural gas flow rate (scfh),**
- c. gas turbine heat input rate (MMBtu/hr), HHV,**
- d. duct burner heat input rate (MMBtu/hr), HHV,**
- e. ammonia stack concentration (ppmvd, corrected to 15% oxygen), and**
- f. ammonia injection rate (lbs/hr).**

- g. steam turbine inner casing temperature (°F),**
- h. SCR inlet temperature (°F),**
- i. exhaust gas temperature (°F), and**
- j. power output (gross MW).**

The monitors shall be installed, calibrated, and maintained in accordance with an approved protocol. This protocol, which shall include calculation methodology, shall be submitted to the District for written approval at least 60 days prior to initial firing of the gas turbines with the SCR system. The monitors shall be in full operation at all times when the turbine is in operation.

Verification: The project owner shall **make the records available for inspection by representatives of the District, ARB and the Commission.** provide copies of the CEMS installation, calibration, and maintenance protocol, including the calculation methodology, to the District for written approval, and the CPM at least 60 days prior to initial firing of the gas turbines with the SCR system.

AQ-12. Prior to initial firing, each turbine shall be equipped with continuous monitors to measure or calculate and record the following operational characteristics of each unit:

- natural gas flow rate (scfh),
- heat input rate (MMBtu/hr),
- exhaust gas flow rate (dscfm),
- exhaust gas temperature (°F), and
- power output (gross MW).

The monitors shall be installed, calibrated, and maintained in accordance with an approved protocol. This protocol, which shall include calculation methodology, shall be submitted to the District for written approval at least 60 days prior to initial firing of the gas turbines. The monitors shall be in full operation at all times when the turbine is in operation.

Verification: The project owner shall provide copies of the operating protocol, including the calculation methodology for the CEMS system or a CEMS development status to the District, for written approval, and the CPM at least 60 days prior to initial firing of the gas turbines.

AQ-37. **AQ-18.** The applicant shall maintain records, at least on a calendar monthly basis, of total aggregate mass emissions of NO_x, CO and VOC, in tons per year, from all equipment, including the auxiliary boiler **emission units**, at this stationary source for the previous 12-**calendar** month period. These records shall be maintained on-site for a minimum of five years and made available to District personnel upon request **for inspection within 30 calendar days after the end of each calendar month.**

Verification: The project owner shall ~~maintain~~ **make the** records, at least on a calendar monthly basis, of total aggregate mass emissions of NO_x, CO and VOC, in tons per year, from all equipment, excluding exempt equipment, at this stationary source for the previous 12-month period. ~~These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition shall be included in the quarterly reports required in Condition AQ-64.~~

AQ-38. ~~AQ-64.~~ All records required by this Authority to Construct **written permit** shall be maintained on site for a minimum of five years and made available to **the** District ~~personnel~~ upon request. In addition, quarterly reports of information recorded by these conditions, as specified, shall be sent to the CPM.

Verification: The project owner shall maintain records of the mass emissions and concentrations of each gas turbine during commissioning, optimization, replacement and operation. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ~~California Air Resources Board (CARB)~~ and the Commission. Quarterly reports shall be sent to the ~~C&E~~ **California Energy Commission's** CPM within 60 days after each calendar quarter.

AQ-39. ~~AQ-55.~~ This equipment shall be source tested ~~on at least an~~ **once each permit year (annual basis source test)** to show ~~continued demonstrate~~ compliance with **the** all applicable emission limits, unless otherwise directed **standards specified** in writing **AQ-11, 14, 15, 17, 18, and 19 of this permit. For the purposes of this permit, a permit year is the 12-month period ending on the last day of the permit expiration month. It is the responsibility of the project owner to schedule the source test with the District. The source test shall be performed or witnessed** by the District. **Each annual source test shall be separated by at least 90 days from any annual source test performed in a different permit year.** If this testing will be performed by someone other than the District, a source test protocol shall be submitted to the District for written approval at least 60 days prior to source testing. The source test protocol shall comply with the following requirements:

- a. Measurements of oxides of nitrogen (NO_x), carbon monoxide (CO), and stack gas oxygen content (**O₂**) shall be conducted in accordance with **U.S. Environmental Protection Agency (EPA) Methods 7E, 10 and 3A, respectively, and** the San Diego Air Pollution Control District Method 100, or equivalent, as **alternative methods** approved by the **District and the** U.S. Environmental Protection Agency (EPA).

- b. Measurements of particulate matter less than 10 microns shall be conducted in accordance with the U.S. Environmental Protection Agency (EPA) Methods 201A and 202, or equivalent, as **alternative methods** approved by the **District and the U.S. Environmental Protection Agency (EPA)**.
- c. Measurements of volatile organic compounds (VOC) shall be conducted in accordance with San Diego Air Pollution Control District Methods 18 and/or 25A, or equivalent, as **alternative methods** approved by the **District and the U.S. Environmental Protection Agency (EPA)**.
- d. Measurements of ammonia emissions shall be conducted in accordance with Bay Area Air Quality Management District (BAAQMD) Method ST-1B, or alternative methods approved by the District and the EPA.**
- ~~e. d.~~ Source testing shall be performed at no less than 80% of **only with both the combustion turbine rating without and duct firing, at no less than 80% of the turbine rating with burner in operation. The duct firing, and burner shall be operated at not less than 80% of the auxiliary boiler rating rated heat input unless it is demonstrated.** If the applicant demonstrates to the satisfaction of the District that the turbine **unit** cannot operate at **under** these conditions, then source testing shall be performed at the highest achievable continuous power rating. **If the demonstration is accepted, then the emissions source testing shall be performed at the highest achievable continuous heat input.**
- f. Source testing shall be performed at not less than 80% of the unit's rated load unless it is demonstrated to the satisfaction of the District that the unit cannot operate under these conditions. If the demonstration is accepted, then emissions source testing shall be performed at the highest achievable continuous power level.**
- ~~g. e.~~ The following additional operating characteristics shall also be measured or calculated and recorded:
- gas turbine** natural gas flow rate (scfh),
 - duct burner natural gas flow rate (scfh)**,
 - fuel higher heating value (Btu/scf),
 - gas turbine** heat input rate (MMBtu/hr),
 - duct burner heat input rate (MMBtu/hr)**,
 - ammonia injection rate (lbs/hr)**,
 - exhaust gas flow rate (dscfm),
 - SCR inlet temperature (°F)**,
 - exhaust gas temperature (°F),
 - power output (gross MW), if applicable.

Verification: This project owner provide copies of the annual source test reports to the District for review and written approval, and the CPM within 60 days after the completion of the initial compliance testing. **The project owner shall make the records available for inspection by representatives of the District, ARB and the Commission.**

AQ-40. A Relative Accuracy Test Audit (RATA) and all other required certification tests shall be performed and completed on the CEMS in accordance with applicable provisions of 40 CFR part 75 Appendix A and B performance specifications. At least 30 days prior to the test date, the project owner shall submit a test protocol to the District for approval. Additionally, the District shall be notified a minimum of 21 days prior to the test so that observers may be present.

Verification: **At least 30 days prior to the test date, the project owner shall submit a test protocol to the District for approval and the Commission for information. The project owner shall make the records available for inspection by representatives of the District, ARB and the Commission.**

AQ-41. Within 45 days after completion of the renewal source test or RATA, a final test report shall be submitted to the District for review and approval.

Verification: **Within 45 days after completion of the renewal source test or RATA, a final test report shall be submitted to the District and the Commission for review and approval. The project owner shall make the records available for inspection by representatives of the District, ARB and the Commission.**

AQ-42. ~~AQ-58.~~ Beginning with the start of the ongoing emission reduction monitoring period as defined in “Alternative Mobile Source Emission Reduction Program for Replacing Heavy and Medium Heavy-Duty Diesel Powered Vehicles and Repowering of Marine Vessels Under Rule 27 (c)(1)(vi)” as approved on September 8, 2000 (herein referred to as the Alternative MERC Program), the owner or operator shall, on or before the last day of the second calendar month following the end of each ongoing emission reduction monitoring year:

- (a) ~~F~~for each ongoing emission reduction monitoring year, based on the quarterly activity levels submitted by the mobile source owners and the applicable calculation method specified in the Alternative MERC Program, perform a calculation of the annual average and annual aggregate ongoing emission reductions and the ongoing emission reduction deficit, if any, for the MERCs surrendered to offset the facility's emissions;

- (b). ~~P~~**ro**vide an annual report to the District that summarizes the annual average ongoing emission reductions for each MERC, aggregate ongoing emission reductions, and the ongoing emission reduction deficit, if any, and provides supporting calculations and documentation; and
- (c). ~~I~~**f** the calculated annual ongoing emission reduction deficit is positive, notify the District, provide a compliance schedule to correct the ongoing emission reduction deficit, and correct the ongoing emission reduction deficit in accordance with Subsection (h)(4) of the Alternative MERC Program.

Verification: The project owner shall submit an annual MERC report to the District and the CPM on or before the last day of the second calendar month following the end of each ongoing emission reduction monitoring year.

AQ-43. ~~AQ-59.~~ Beginning with the second calendar year following the calendar year that the facility commences operations, the owner or operator shall, on or before March 1 of each calendar year:

- (a). ~~B~~**a**sed on information supplied by the mobile source owners for each MERC surrendered to the District, notify the District if the MERC fractional employment is less than 0.8;
- (b). ~~B~~**a**sed on information supplied by the mobile source owners for each MERC surrendered to the District, notify the District if the MERC fractional employment in primary service is less than 0.8; and
- (c). ~~I~~**f** one or more MERCs fractional employment or fractional employment in primary service is less than 0.8, provide a compliance schedule to correct any MERC shortfall and correct any MERC shortfall in accordance with Subsection (j)(4) of the Alternative MERC Program.

Verification: The project owner shall submit a report on MERC monitoring to the District and the CPM on or before March 1 of each calendar year. **The project owner shall make the records available for inspection by representatives of the District, ARB and the Commission.**

~~**AQ-44.** Fuel consumption by the auxiliary boiler shall not exceed 762,120 MMBtu (HHV) per rolling 12-month period. The CEMS shall record the total auxiliary boiler fuel usage for each rolling 12-month period (in MMBtu). The applicant shall maintain a log that contains, at a minimum, the dates, times and fuel consumption during each auxiliary boiler startup and shutdown and the total auxiliary boiler fuel consumption for each rolling 12-month period. These records shall be maintained on site for a minimum of five years and made available to District personnel upon request.~~

Verification: ~~The project owner shall maintain records of the operation of the auxiliary boiler. These records shall be maintained on-site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition shall be included in the quarterly reports required in Condition AQ-64.~~

AQ-44. ~~AQ-61.~~ On or before the expiration date, if any, of a MERC surrendered to offset the NOx emissions from this facility, additional Class A emission reduction credits equivalent to the expiring MERC shall be surrendered to the District to offset project emissions unless project emissions are reduced such that 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, **If the project NOx emissions limit is reduced to 1.0 ppm,** 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)~~

Verification: ~~The project owner shall maintain make the records of the mass emissions and concentrations of each gas turbine during commissioning, optimization, replacement and operation. These records shall be maintained on-site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition A statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-~~38~~64.~~

AQ-45. ~~Once final selection and design details of the auxiliary boiler have been submitted to the District, specific operating parameters defining auxiliary boiler startups and shutdowns shall be established.~~

Verification: ~~At least 90 days prior to on-site delivery of equipment, the project owner shall provide copies of design details of the auxiliary boiler, including any proposed post combustion control systems to the CPM and the District.~~

RETAINED DISTRICT CONDITIONS NOT INCLUDED IN PTO

AQ-45. ~~AQ-6.~~ The exhaust stacks for each turbine power station shall be at least 160 feet (48.8 meters) in height.

Verification: None required. ~~The project owner shall provide copies of the design details of the gas turbines and associated equipment to be installed, including all proposed post-combustion control systems (SCONOx and SCR) to the CPM and the District at least 90 days prior to the start of rough grading.~~

~~**AQ-46.**—The emissions of oxides of nitrogen (NO_x) from the auxiliary boiler, calculated as nitrogen dioxide, shall not exceed 9.0 parts per million by volume on a dry basis (ppmvd) corrected to 3% oxygen. Compliance with this limit shall be based on an initial emissions source test and annual source testing thereafter. This limit shall not apply during startups and shutdowns of the auxiliary boiler.~~

~~**Verification:**—The project owner shall provide copies of the initial compliance and annual source test reports to the District and the CEC CPM within 60 days after completion of the compliance or source tests.~~

~~**AQ-46.** **AQ-28.** For the purposes of this permit Determination of Compliance and Authority to Construct, the period described as “on-going” operation of the turbines shall commence immediately following the end of the Commissioning Period. Condition Nos. AQ-9, 10, ~~12, 16, 17, 18, 19, 20, 21, 22 and 23~~, 36, 37, and 51 shall continue to apply during on-going operations.~~

~~**Verification:** The project owner shall maintain records of the mass emissions and concentrations of each gas turbine when operating. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition A statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-~~38~~64.~~

~~**AQ-47.**—The emissions of carbon monoxide (CO) from the auxiliary boiler shall not exceed 50 parts per million by volume on a dry basis (ppmvd) corrected to 3% oxygen. Compliance with this limit shall be based on an initial emissions source test and annual source testing thereafter. This limit shall not apply during startups and shutdowns of the auxiliary boiler.~~

~~**Verification:**—The project owner shall provide copies of the initial compliance and annual source test reports to the District and the CEC CPM within 60 days after completion of the compliance or source tests.~~

~~**AQ-47.** **AQ-4.** The permittee project owner shall obtain any necessary District permits for all ancillary combustion equipment, including emergency engines, prior to on-site delivery of the equipment.~~

~~**Verification:** The project owner shall provide copies of the design details of the ancillary equipment to be installed, including emergency engines to the CPM and the District at least 90 days prior to the delivery of the equipment to the project site.~~

~~**AQ-48.**—The emissions of volatile organic compounds (VOC) from the auxiliary boiler, calculated as methane, shall not exceed 10.0 parts per million by volume on a dry basis (ppmvd) corrected to 3%~~

~~oxygen. Compliance with this limit shall be based on an initial emissions source test and annual source testing thereafter. This limit shall not apply during startups and shutdowns of the auxiliary boiler.~~

~~**Verification:** The project owner shall provide copies of the initial compliance and annual source test reports to the District and the CEC CPM within 60 days after completion of the compliance or source tests.~~

~~**AQ-48.** **AQ-7.** The exhaust stacks for each turbine power station shall be equipped with source test ports and platforms to allow for the measurement and collection of stack gas samples consistent with all approved test protocols. The ports and platforms shall be constructed in accordance with District Method 3A, Appendix Figure 2.~~

~~**Verification:** **None required.** The project owner shall provide copies of the design details of the gas turbines and associated equipment to be installed, including all proposed post-combustion control systems (SCONOx and SCR) to the CPM and the District at least 90 days prior to the start of rough grading.~~

~~**AQ-49.** Startup for the auxiliary boiler shall be defined as the period beginning with the introduction of fuel to the equipment and ending when the CEMS records two consecutive data points in compliance with the emission concentration limits of Conditions 46, 47 and 48, not to exceed 1 hour.~~

~~**Verification:** The project owner shall maintain records of the duration of startups of the auxiliary boiler. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition shall be included in the quarterly reports required in Condition AQ-64.~~

~~**AQ-49.** **AQ-42.** The applicant **project owner** shall maintain a log of all startups and shutdowns for each turbine and the auxiliary boiler. The log shall contain, at a minimum, the dates and times of each startup or shutdown, and the duration of each startup or shutdown. This log shall be maintained on site for a minimum of five years and made available to District personnel upon request.~~

~~**Verification:** The project owner shall maintain records of all startups and shutdown of each gas turbine and the auxiliary boiler. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition **The startup and shutdown log** shall be included in the quarterly reports required in Condition AQ-~~38~~64.~~

~~**AQ-50.** Shutdown for the auxiliary boiler shall be defined as the period beginning when the CEMS records two consecutive data points not in compliance with the emission concentration limits of Conditions 46, 47 and 48, and ending with the termination of fuel flow to the auxiliary boiler, not to exceed 1 hour.~~

~~**Verification:** The project owner shall maintain records of the duration of shutdowns of the auxiliary boiler. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition shall be included in the quarterly reports required in Condition AQ-64.~~

~~**AQ-50.** **AQ-20.** To ensure compliance with District Rule 69.3.1 and except during any period of time for which a variance from Rule 69.3.1 has been granted by the Air Pollution Control District Hearing Board, when operating without any post-combustion air pollution control equipment, the emissions of oxides of nitrogen (NOx), calculated as nitrogen dioxide, from each turbine shall not exceed 19.8 parts per million by volume on a dry basis (ppmvd) calculated over a 1-hour averaging period and corrected to 15% oxygen, excluding startups and shutdowns as defined in District Rule 69.3.1.~~

~~**Verification:** The project owner shall maintain records of the NOx emission concentrations of each gas turbine when operating with post-combustion air pollution control equipment. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, California Air Resources Board (CARB) and the Commission. The information gathered in this condition **A summary of exceedances, if any, and a statement showing compliance status with this condition** shall be included in the quarterly reports required in Condition AQ-~~38~~64.~~

~~**AQ-51.** Within 30 days after completion of the Commissioning Period, an initial emissions source test shall be conducted on each turbine and on the auxiliary boiler by an independent, Air Resources Board (ARB) approved tester at the applicant's expense to show compliance with all applicable emission limits. A source test protocol shall be submitted to the District for written approval at least 60 days prior to source testing. The source test protocol shall comply with the following requirements:~~

- ~~a. Measurements of oxides of nitrogen (NOx), carbon monoxide (CO), and stack gas oxygen content shall be conducted in accordance with the San Diego Air Pollution Control District Method 100, or equivalent, as approved by the U.S. Environmental Protection Agency (EPA).~~
- ~~b. Measurements of particulate matter less than 10 microns shall be conducted in accordance with the U.S. Environmental Protection Agency~~

(EPA) Methods 201A and 202, or equivalent, as approved by the U.S. Environmental Protection Agency (EPA).

- c. ~~Measurements of volatile organic compounds (VOC) shall be conducted in accordance with San Diego Air Pollution Control District Methods 18 and 25A, or equivalent, as approved by the U.S. Environmental Protection Agency (EPA).~~
- d. ~~Source testing shall be performed at no less than 80% of the turbine rating without duct firing, at no less than 80% of the turbine rating with duct firing, and at no less than 80% of the auxiliary boiler rating. If the applicant demonstrates to the satisfaction of the District that the turbine cannot operate at these conditions, then source testing shall be performed at the highest achievable continuous power rating.~~
- e. ~~The following additional operating characteristics shall also be measured or calculated and recorded:
 - natural gas flow rate (scfh),
 - fuel higher heating value (Btu/scf),
 - heat input rate (MMBtu/hr),
 - exhaust gas flow rate (dscfm),
 - exhaust gas temperature (°F),
 - power output (gross MW), if applicable.~~

Verification: ~~This project owner provide copies of the annual source test reports to the District for review and written approval, and the CPM within 60 days after the completion of the initial compliance testing.~~

AQ-52. ~~Within 30 days after completion of the Commissioning Period, an initial emissions source test shall be conducted by an independent, ARB approved tester at the applicant's expense to determine the emissions of toxic air contaminants and federal hazardous air pollutants (HAPs). A source test protocol shall be submitted to the District for written approval at least 60 days prior to source testing. The source test shall demonstrate compliance with the following limits (for each turbine):~~

<u>Pollutant</u>	<u>Emission Limit, lbs/hr</u>
Acetaldehyde	0.09
Acrolein	0.01
Benzene	0.03
Ethyl Benzene	0.07
Formaldehyde	0.29
Naphthalene	3.66E-3
Polyaromatic Hydrocarbons (PAHs, (excluding naphthalene)	3.4 E-4
Toluene	0.29
Xylene	0.14

Verification:— This project owner provide copies of the annual source test reports to the District for review and written approval, and the CPM within 60 days after the completion of the initial compliance testing.

AQ-53.— Within 60 days after completion of the initial source tests, a final test report shall be submitted to the District for review and approval. The testing contractor shall include, as part of the test report, a certification that to the best of his knowledge the report is a true and accurate representation of the test conducted and the results.

Verification:— This project owner provide copies of the annual source test reports to the District for review and written approval, and the CPM within 60 days after the completion of the initial compliance testing.

AQ-54.— The final test report for the initial source tests shall also include a method for establishing a VOC/HAP surrogate relationship. This relationship, in conjunction with the CO/VOC surrogate relationship, shall be used to show continued compliance with all HAPs emission limits.

Verification:— The project owner provide copies of the final source test report with a method to establish a VOC/HAP surrogate relationship to the District, for review and written approval, and the CPM within 60 days after the completion of the initial compliance testing.

Emission Offset Conditions

AQ-57.— Prior to the initial firing of this equipment, the project owner shall surrender to the District the Class A Emission Reduction Credits (ERCs) or Mobile Emission Reduction Credits (MERCs) specified in the table below. The amount should be equivalent to 120 tons per year of NOx to offset the maximum permitted NOx emissions from this facility.

Project Emission Reduction Credits

Offset source		NOx	VOC
ERCs	US Foam		30.2
	US Foam	1.3	
	National Offset	4.4	
	Alcoa	1.24	
	Napp Systems		17.05
	Solar Turbines		25
	Designz Unlimited		10.3
	American Fashion	0.7	
	City of San Diego	2.74	
MERCs	San Diego Harbor Excursion: diesel to diesel	29.96	
	Western Maritime: diesel to diesel conversion	8.37	

	WMI: diesel to natural gas engines	35.25	
ERCs: NOX AND VOC		83.90	82.55

Verification: ~~The project owner shall provide copies of the ERC or MERC certificates shown in the table to the District and the CPM 30 days prior to the combustion of fuel in the gas turbines.~~

AQ-60. ~~Deleted~~

ADDITIONAL GENERAL CONDITIONS

AQ-65. ~~Pursuant to 40 CFR 72.30(b)(2)(ii) of the Federal Acid Rain Program, the applicant shall submit an application for a Title IV Operating Permit at least 24 months prior to the initial startup of this equipment.~~

Verification: ~~The project owner shall submit an application for a Title IV Operating Permit to the District, and provide a copy of the application to the CPM, at least 24 months prior to the initial startup.~~

AQ-67. ~~The applicant shall submit an application to the District for a Federal (Title V) Operating Permit, in accordance with District Regulation XIV within 12 months of initial startup of this equipment.~~

Verification: ~~The project owner shall submit an application for a Title V Operating Permit to the District, and provide a copy of the application to the CPM, within 12 months prior to the initial startup.~~

REFERENCES

- CEC 2000, California Energy Commission, Final Staff Assessment (part 2 of 2), Otay Mesa Generating Project, Application for Certification (99-AFC-5), Air Quality Traffic & Transportation Land Use, October 2000.
- CEC 2001, California Energy Commission, Commission Decision, Otay Mesa Generating Project (99-AFC-5), April 2001.
- CEC 2004a, California Energy Commission, Order Approving a Petition to Modify the Project Description, Otay Mesa Generating Project (99-AFC-5C), January 2004.
- CEC 2004b, California Energy Commission, Commission Order Approving Project Modification, Otay Mesa Generating Project (99-AFC-5C), August 2004.
- CEC 2009, California Energy Commission, Order Approving a Petition to Modify Air Quality Conditions of Certification, Otay Mesa Generating Project (99-AFC-5C), June 2009.
- OMEC 2014, Otay Mesa Energy Center, Amendment No. 11 Petition for Modification, May 29, 2014.

Appendix 1 – Finalized Conditions of Certification if Approved

ENERGY COMMISSION STAFF CONDITIONS

These conditions are not included in the District's Permit to Operate (PTO). Although construction is complete, the construction conditions (AQ-SC1 through AQ-SC5) with Tables 1 through 3 are retained as needed to control any future construction activities. Conditions for mitigation (AQ-SC6 and AQ-SC7), conditions for the Wet Surface Air Cooler (AQ-SC8 and AQ-SC9), and the condition requiring submission of permit changes (AQ-SC10) are retained for on-going operations.

For the purposes of these conditions, the following definitions apply:

- (1) ACTIVE OPERATIONS shall mean any activity capable of generating fugitive dust, including, but not limited to, earth-moving activities, construction/ demolition activities, or heavy- and light-duty vehicular movement.
- (2) CHEMICAL STABILIZERS mean any non-toxic chemical dust suppressant which must not be used if prohibited for use by the Regional Water Quality Control Boards, the California Air Resources Board, the U.S. Environmental Protection Agency (U.S. EPA), or any applicable law, rule or regulation; and should meet any specifications, criteria, or tests required by any federal, state, or local water agency. Unless otherwise indicated, the use of a non-toxic chemical stabilizer shall be of sufficient concentration and application frequency to maintain a stabilized surface.
- (3) CONSTRUCTION/DEMOLITION ACTIVITIES are any on-site mechanical activities preparatory to or related to the building, alteration, rehabilitation, demolition or improvement of property, including, but not limited to the following activities; grading, excavation, loading, crushing, cutting, planing, shaping or ground breaking.
- (4) DISTURBED SURFACE AREA means a portion of the earth's surface which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for emission of fugitive dust.
- (5) DUST SUPPRESSANTS are water, hygroscopic materials, or non-toxic chemical stabilizers used as a treatment material to reduce fugitive dust emissions.
- (6) EARTH-MOVING ACTIVITIES shall include, but not be limited to, grading, earth cutting and filling operations, loading or unloading of dirt or bulk materials, adding to or removing from open storage piles of bulk materials, landfill operations, or soil mulching.

(7) FUGITIVE DUST means any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of man.

(8) INACTIVE DISTURBED SURFACE AREA means any disturbed surface area upon which active operations have not occurred or are not expected to occur for a period of ten consecutive days.

(9) STABILIZED SURFACE means:

(A) any disturbed surface area or open storage pile which is resistant to wind-driven fugitive dust;

(B) any unpaved road surface in which any fugitive dust plume emanating from vehicular traffic does not exceed 20 percent opacity.

(10) VISIBLE ROADWAY DUST means any sand, soil, dirt, or other solid particulate matter which is visible upon paved road surfaces and which can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.

AQ-SC1. The project owner shall implement a California Energy Commission CPM approved fugitive Dust Control Plan.

Protocol: The plan shall include the following:

1. A description of each of the active operation(s) which may result in the generation of fugitive dust;
2. An identification of all sources of fugitive dust (e.g., earth-moving, storage piles, vehicular traffic, etc).
3. A description of the control measures to be applied to each of the sources of dust emissions identified above (including those required in AQ-SC2 and –SC3 below). The description must be sufficiently detailed to demonstrate that the applicable best available control measure(s) as specified in Table 1 (attached) will be utilized and/or installed during all periods of active operations;
4. In the event that there are special technical (e.g., non-economic) circumstances, including safety, which prevent the use of at least one of the required control measures for any of the sources identified, a justification statement must be provided to explain the reason(s) why the required control measures cannot be implemented.

Verification: Not later than sixty (60) days prior to the commencement of construction, the project owner shall submit the plan to the California Energy Commission CPM for review and approval. The project owner shall maintain daily records to document the specific actions taken pursuant to the plan and Table 1. A summary of the monthly activities shall be submitted to the CPM via the Monthly Compliance Report.

AQ-SC2. During the construction phase of the project, the project owner shall:

1. Prevent or remove within one hour the track-out of bulk material onto public paved roadways as a result of their operations, or take at least one of the actions listed in Table 2 (attached) to prevent the track-out of bulk material onto public paved roadways as a result of their operations and remove such material at anytime track-out extends for a cumulative distance of greater than 50 feet on to any paved public road during active operations;
2. Install and use a track-out control device to prevent the track-out of bulk material from areas containing soils requiring corrective to other areas within the project construction site and laydown area;
3. Minimize fugitive particulate emissions from vehicular traffic on paved roads and paved parking lots on the construction site by vacuum mechanical sweeping or water flushing of the road surface to remove buildup of loose material. The project owner shall inspect on a daily basis the conditions of the paved roads and parking lots to determine the need for mechanical sweeping or water flushing.

Verification: The project owner shall maintain a daily log during the construction phase of the project indicating: 1) the manner in which compliance with this condition or Table 2 is achieved, and 2) the date and time when the inspection of paved roads and parking lots occurs and the date and time(s) when the cleaning operation occurs. The logs shall be made available to the California Energy Commission CPM upon request.

AQ-SC3. At any time when fugitive dust from project construction is visible in the atmosphere beyond the property line, the project owner will identify the source of the fugitive dust and implement one or more of the appropriate control measures specified in Table 3 (attached)

Verification: The project owner will maintain a daily log recording the dates and times that measures in Table 3 (attached) have been implemented and make them available to the CPM upon request.

AQ-SC4. The project owner shall implement an approved Construction Equipment Plan. The Plan shall identify how the project owner will ensure that all heavy equipment, that includes, but is not limited to, bulldozers, backhoes, compactors, loaders, motor graders and trenchers, and cranes, dump trucks and other heavy duty construction related trucks, used on-site by construction contractors and subcontractors:

- a. are properly maintained;
- b. use low sulfur diesel fuel, 50 ppm sulfur or less;
- c. limit idling times; and
- d. meet federal emission standards for construction equipment.

Verification: Not later than sixty (60) days prior to the commencement of construction, the project owner shall submit the plan to the California Energy Commission CPM for review and approval. The project owner shall maintain records to document the specific actions taken pursuant to the plan. A summary of the monthly activities shall be submitted to the CPM via the Monthly Compliance Report.

AQ-SC5. The project owner shall ensure that all heavy earthmoving equipment including, but not limited to, bulldozers, backhoes, compactors, loaders, motor graders and trenchers, and cranes, dump trucks and other heavy duty construction related trucks, have been properly maintained and the engines tuned to the engine manufacturer's specifications. The project owner shall also install oxidizing soot filters on all suitable construction equipment used either on the power plant construction site or associated linear construction sites. Where the oxidizing soot filter is determined to be unsuitable, the owner shall install and use an oxidizing catalyst. Additionally, the project owner shall employ high pressure fuel injection, timing retardation, and reduced idle time on all suitable construction equipment. Suitability is to be determined by an independent California Licensed Mechanical Engineer or a Qualified Environmental Professional who will stamp and submit for approval an initial and all subsequent Suitability Reports as necessary containing at a minimum the following:

Initial Suitability Report:

- The initial suitability report shall be submitted to the CPM for approval 60 days prior to the relevant equipment being used at the project site.
- A list of all fuel burning, construction related equipment used,
- a determination of the suitability of each piece of equipment to work appropriately with an oxidizing soot filter, or an oxidizing catalyst,
- if a piece of equipment is determined to be suitable, a statement by the equipment or catalyst manufacturers, the independent California Licensed Mechanical Engineer, or a Qualified Environmental Professional that the oxidizing soot filter has been installed and is functioning properly,
- if a piece of equipment is determined to be unsuitable, an explanation by the equipment or catalyst manufacturers, the independent California Licensed Mechanical Engineer, or a Qualified Environmental Professional as to the cause of this determination, and
- a statement by the equipment or catalyst manufacturers, the California Licensed Mechanical Engineer, or a Qualified Environmental Professional as to the suitability of using high-pressure fuel injectors, timing retardation and/or reduced idle time on all construction equipment after the installation of either oxidizing soot filters or oxidizing catalysts.

Subsequent Suitability Reports

- If a piece of construction equipment is subsequently determined to be unsuitable for an oxidizing soot filter after such installation has occurred, the filter may be removed immediately. However notification must be sent to the CPM for approval containing an explanation for the change in suitability within 10 days.

- Changes in suitability are restricted to three explanations, which must be identified in any subsequent suitability report. Changes in suitability may not be based on the use of high-pressure fuel injectors, timing retardation and/or reduced idle time.
 1. The oxidizing soot filter is reducing normal availability of the construction equipment due to increased downtime, and/or power output due to increased back pressure by 20% or more.
 2. The oxidizing soot filter is causing or reasonably expected to cause significant damage to the construction equipment engine.
 3. The oxidizing soot filter is causing or reasonably expected to cause a significant risk to nearby workers or the public.

Changes in suitability may not be based on the use of high-pressure fuel injectors, timing retardation and/or reduced idle time.

Verification: The project owner shall submit to the CPM, via the Monthly Compliance Report, documentation, which demonstrates that the contractor's heavy earthmoving equipment is properly maintained and the engines are tuned to the manufacturer's specifications. The project owner shall maintain all records on the site for six months following the start of commercial operation. The project owner will submit to the CPM for approval, the initial suitability report stamped by an independent California Licensed Mechanical Engineer or a Qualified Environmental Professional, 60 days prior to breaking ground on the project site. The project owner will submit to the CPM for approval, subsequent suitability reports as required, stamped by an independent California Licensed Mechanical Engineer or a Qualified Environmental Professional, no later than 10 working day following a change in the suitability status of any construction equipment.

AQ-SC6. The owner/operator shall provide a mitigation fee, for potential PM10 and PM10 precursor impacts, to the District APCO to provide PM10 and PM10 precursor reductions throughout the District. The amount of the fee shall equal \$1.2 million escalated at a rate equal to the Consumer Price Index from October 31, 2003 until the payment is made. The payment shall be made no later than 14 months prior to "first fire" of either turbine, or October 31, 2006, whichever is first. The fees shall be provided to the District, who with guidance from ARB or the California Energy Commission, will allocate the funds to programs such as the Lower-Emission School Bus Retrofit Program, the Carl Moyer program, or some other program designed to reduce PM10 and PM10 precursor emission in the District.

The District shall preferentially make available the mitigation fee funds to the Sweetwater Union High, the San Ysidro Elementary, the South Bay Elementary, or the Chula Vista Elementary Districts for school bus retrofits. The preference shall be in the form of a first right of refusal given to the above districts for no more than 2 years from the date of the first fee payment by the project owner. Any mitigation fee funds not used by the above school districts or available after 2 years from the date of the first fee

payment by the project owner shall be made available for other program-appropriate emission reductions through the District's program.

Verification: No later than 20 days after delivery of the mitigation payment to the District, the project owner/operator shall provide to the California Energy Commission CPM a letter (or copy thereof) from the District APCO indicating receipt of the payment.

AQ-SC7. The owner/operator shall assign to the project all PM10, VOC and SOX emission reductions that occur intentionally or incidentally during the formation of the NOx MERC for the project. The PM10, VOC and SOX emission reductions are part of the PM10 and PM10 precursor mitigation for the project.

Verification: The owner/operator shall provide a letter assigning to the project, and for the life of the project, all PM10, VOC and SOX emission reductions that occur intentionally or incidentally during the formation of the project's NOx MERCs. The letter shall be provided to the California Energy Commission CPM with the surrender of the ERC and MERC certificates.

AQ-SC8. The emissions of particulate matter less than 10 microns (PM10) from the Wet Surface Air Cooler shall not exceed 0.1 lbs/hr, based on design specifications limiting circulating water flow rates to no more than 5 million gallons per hour and warranties limiting drift to no more than 0.0006%.

Verification: The project owner shall provide copies of Wet Surface Air Cooler specifications and a vendor warranty of the drift efficiency to the California Energy Commission CPM 60 days prior to WSAC equipment delivery on-site.

AQ-SC9. Compliance with the WSAC PM10 emission limit shall be determined by circulating water sample analysis by independent laboratory within 60 days of initial operation and quarterly thereafter.

Verification: The results and field data collected from cooling tower blowdown water samples analysis shall be submitted to the CPM and the District as part of the quarterly reports required in Condition AQ-38.

AQ-SC10. The project owner shall submit to the CPM for review and approval any modification proposed by the project owner to any project air permit. The project owner shall submit to the CPM any modification to any permit proposed by the District or EPA, and any revised permit issued by the District or EPA, for the project.

Verification: The project owner shall submit any proposed air permit modification to the CPM within five working days of its submittal either by 1) the project owner to an agency, or 2) receipt of proposed modifications from an agency. The project owner shall submit all modified air permits to the CPM within 15 days of receipt.

Staff moved Tables 1 through 3 up because Conditions of Certification AQ-SC1, AQ-SC2, and AQ-SC3 referred to them and they are not included in the district's PTO.

**TABLE 1
BEST AVAILABLE FUGITIVE DUST CONTROL MEASURES**

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS
Earth-moving (except construction cutting and filling areas, and mining operations)	<p>Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the California Energy Commission CPM. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR</p> <p>For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.</p>
Earth-moving: Construction fill areas:	<p>Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the California Energy Commission CPM. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the California Energy Commission CPM, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.</p>
Earth-moving: Construction cut areas and mining operations:	<p>Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.</p>
Disturbed surface areas (except completed grading areas)	<p>Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.</p>
Disturbed surface areas: Completed grading areas	<p>Apply chemical stabilizers within five working days of grading completion; OR</p> <p>Take actions (3a) or (3c) specified for inactive disturbed surface areas.</p>
Inactive disturbed surface areas	<p>Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR</p> <p>Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR</p>

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS
	Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.
Unpaved Roads	Water all roads used for any vehicular traffic at least once per every two hours of active operations; OR Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.
Open storage piles	Apply chemical stabilizers; OR Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR Install temporary coverings; OR Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile.
ALL CATEGORIES	Any other control measures approved by the California Energy Commission CPM as equivalent to the methods specified in Table 1 may be used.

TABLE 2
TRACK-OUT CONTROL OPTIONS

(1)	Pave or apply chemical stabilization at sufficient concentration and frequency to maintain a stabilized surface starting from the point of intersection with the public paved surface, and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.
(2)	Pave from the point of intersection with the public paved road surface, and extending for a centerline distance of at least 25 feet and a width of at least 20 feet, and install a track-out control device immediately adjacent to the paved surface such that exiting vehicles do not travel on any unpaved road surface after passing through the track-out control device.
(3)	Any other control measures approved by the California Energy Commission CPM as equivalent to the methods specified in Table 2 may be used.

**TABLE 3
CONTROL MEASURES FOR WIND CONDITIONS EXCEEDING 25 MPH**

FUGITIVE DUST SOURCE CATEGORY	CONTROL MEASURES
Earth-moving	Cease all active operations; OR Apply water to soil not more than 15 minutes prior to moving such soil.
Disturbed surface areas	On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR Apply chemical stabilizers prior to wind event; OR Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR Take the actions specified in Table 1, Item (3c); OR Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	Apply chemical stabilizers prior to wind event; OR Apply water twice [once] per hour during active operation; OR Stop all vehicular traffic.
Open storage piles	Apply water twice [once] per hour; OR Install temporary coverings.
Paved road track-out	Cover all haul vehicles; OR Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.
All Categories	Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.

DISTRICT OTAY MESA ENERGY CENTER PTO CONDITIONS

AQ-1. Operation of this equipment shall be conducted in accordance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.

Verification: The project owner shall make the site available for inspection by representatives of the District, California Air Resources Board (ARB) and the Commission.

AQ-2. This equipment shall be properly maintained and kept in good operating condition at all times.

Verification: The project owner shall make the site and records available for inspection by representatives of the District, ARB and the Commission.

AQ-3. The unit shall be fired on Public Utility Commission (PUC) quality natural gas only. The project owner shall maintain quarterly records of sulfur content (grains/100 dscf) and higher and lower heating values (Btu/dscf) of the natural gas and provide such records to the District personnel upon request.

Verification: The project owner shall make the records available for inspection by representatives of the District, ARB and the Commission.

AQ-4. The project owner shall comply with all the applicable provisions of 40 CFR 73, including requirements to offset, hold and retire SO₂ allowances.

Verification: The project owner shall make the records available for inspection by representatives of the District, ARB and the Commission.

AQ-5. The emissions of any single federal hazardous air pollutant (HAP) shall not equal or exceed 10 tons, and the aggregate of all federal HAPs, shall not equal or exceed 25 tons in any rolling 12 calendar month period. Compliance with the HAP limits shall be based on a surrogate VOC/HAP correlation factor determined during initial source testing. If emissions exceed these limits, the project owner shall apply to amend this permit to reflect applicable Federal Maximum Achievable Control Technology (MACT) standards and requirements in accordance with applicable provisions (including timing requirements) of 40 CFR 63.

Verification: The project owner shall maintain records of the mass emissions of hazardous air pollutants of each gas turbine when operating. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. The HAPs emissions summarized for each rolling 12 calendar month period shall be included in the quarterly reports required in Condition AQ-38.

AQ-6. Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District.

Verification: The project owner shall make the site and records available for inspection by representatives of the District, ARB and the Commission.

AQ-7. The Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.

Verification: The project owner shall make the site and records available for inspection by representatives of the District, ARB and the Commission.

AQ-8. The project owner shall, upon determination of applicability and written notification by the District, comply with all applicable requirements of the Air Toxics "Hot Spots" Information and Assessment Act (California Health and Safety Code Section 44300 et seq.)

Verification: The project owner shall make the records available for inspection by representatives of the District, ARB and the Commission.

AQ-9. The total aggregate annual emissions from all emission units at the stationary source shall not exceed 100 tons of oxides of nitrogen (NO_x), calculated as nitrogen dioxide, and shall not exceed 316 tons of carbon monoxide (CO) for each consecutive 12-calendar month period. The NO_x and CO emissions shall begin accruing at the initial firing of each turbine. Compliance with this limit shall be verified using the CEMS system on each gas turbine as well as EPA- or ARB-certified NO_x emissions factors, testing results, or other representative emissions information for all other combustion equipment.

Verification: The project owner shall maintain records, at least on a calendar monthly basis, of total aggregate mass emissions of NO_x, CO, and VOC in tons per year, from all equipment, excluding exempt equipment, at this stationary source for the previous 12-month period. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. The total aggregate annual emissions of NO_x and CO summarized for each consecutive 12-calendar month period shall be included in the quarterly reports required in Condition AQ-38.

AQ-10. The total aggregate emissions of volatile organic compounds (VOC) from all emission units at the stationary source shall not exceed 47.5 tons for each consecutive 12-calendar month period. The VOC emissions shall begin accruing at the initial firing of each piece of equipment. Compliance shall be verified using testing results, EPA- or ARB-certified VOC emissions factors, and/or other representative emissions information for all other combustion equipment.

Verification: The project owner shall maintain records, at least on a calendar monthly basis, of total aggregate mass emissions of NO_x, CO, and VOC in tons per year, from all equipment, excluding exempt equipment, at this stationary source for the previous 12-month period. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. The total aggregate annual emissions of VOC summarized for each consecutive 12-calendar month period shall be included in the quarterly reports required in Condition AQ-38.

- AQ-11.** The emissions of oxides of nitrogen (NO_x) 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 shutdown conditions and time that the equipment is not in operation. Compliance with this limit shall also be verified through annual source testing. This limit shall not apply to the first fifteen 1-hour average NO_x 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_x emissions above 2.0 ppmvd corrected to 15% oxygen did not occur as a result of operator neglect, improper operation or maintenance, and is a 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. The notations in the log shall describe the data and time of entry into the log and the plant operating conditions responsible for NO_x emissions exceeding the 2.0 ppmvd 1-hour average limit.
 - d. the 1-hour average NO_x concentration for periods that result from a qualified operating condition described in (a) above does not exceed 25 ppmvd corrected to 15% oxygen.

All NO_x emissions during these events shall be included in all calculations of hourly, daily, and annual mass emission rates as required by the Permit to Operate.

Verification: The project owner shall maintain records, at least on a calendar monthly basis, of total aggregate mass emissions (in tons per year) and concentrations (in ppmvd) of NO_x, CO, and VOC, from all equipment, excluding exempt equipment, at this stationary source for the previous 12-month period. These records shall be maintained on site for a minimum of five years and shall be available for inspection by

representatives of the District, ARB and the Commission. A summary of exceedances, if any, and a statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.

AQ-12. The emissions of oxides of nitrogen (NO_x) from each turbine, calculated as nitrogen dioxide, shall not exceed 110 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen. This limit shall apply at all times, including periods of startup and shutdown. Compliance with this limit shall be based on CEMS data for each unit as averaged in accordance with 40 CFR 60 Subpart GG Subsection 60.334.

Verification: The project owner shall maintain records, at least on a calendar monthly basis, of total aggregate mass emissions (in tons per year) and concentrations (in ppmvd) of NO_x, CO, and VOC, from all equipment, excluding exempt equipment, at this stationary source for the previous 12-month period. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. A summary of exceedances, if any, and a statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.

AQ-13. Excess emissions, as defined in 40 CFR 60 Subpart GG Subsection 60.334, shall be reported pursuant for all periods of unit operation, including startup, shutdown, and malfunction in accordance with 40 CFR 60 Subpart A Subsection 60.7(c). These reports shall be postmarked by the 30th day following the end of each calendar 6-month period unless more frequent reporting is required in accordance with 40 CFR 60 Subpart A Subsection 60.7(c). These reports shall be submitted to the District's Compliance Division.

Verification: These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. Excess emissions reports shall be included in the quarterly reports required in Condition AQ-38.

AQ-14. 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 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 annual source testing.

Verification: The project owner shall maintain records, at least on a calendar monthly basis, of total aggregate mass emissions (in tons per year) and concentrations (in ppmvd) of NO_x, CO, and VOC, from all equipment, excluding exempt equipment, at this stationary source for the previous 12-month period. These records shall be

maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. A summary of exceedances, if any, and a statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.

AQ-15. 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 annual source testing.

Verification: The project owner shall maintain records, at least on a calendar monthly basis, of total aggregate mass emissions (in tons per year) and concentrations (in ppmvd) of NO_x, CO, and VOC, from all equipment, excluding exempt equipment, at this stationary source for the previous 12-month period. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. A summary of exceedances, if any, and a statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.

AQ-16. When operated with the duct burner at or below 38.8 MMBtu/hr heat input, the emissions from each turbine 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/or District approved emission source testing. Compliance with the NO_x and CO limits shall be based on a continuous 3-hour averaging period and compliance with the VOC limit shall be based on a 1-hour averaging period.

<u>Pollutant</u>	<u>Emission Limit, lbs/hr</u>
Oxides of Nitrogen, NO _x (calculated as NO ₂)	13.14
Carbon Monoxide, CO	24.0
Volatile Organic Compounds, VOC	4.58

Verification: The project owner shall maintain records of the mass emissions and concentrations of each gas turbine when operating with the duct burner at or below 38.8 MMBtu/hr heat input. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. A summary of exceedances, if any, and a statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.

AQ-17. When operated with the duct burner above 38.8 MMBtu/hr heat input, 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/or District approved emission source testing. Compliance with the NOx and CO limits shall be based on a continuous 3-hour averaging period and compliance with the VOC limit shall be based on a 1-hour averaging period.

<u>Pollutant</u>	<u>Emission Limit, lbs/hr</u>
Oxides of Nitrogen, NOx (calculated as NO ₂)	15.95
Carbon Monoxide, CO	29.13
Volatile Organic Compounds, VOC	5.56

Verification: The project owner shall maintain records of the mass emissions and concentrations of each gas turbine when operating with the duct burner above 38.8 MMBtu/hr heat input. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. A summary of exceedances, if any, and a statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.

AQ-18. The emissions of particulate matter less than 10 microns (PM10) from each turbine shall not exceed 9.0 lbs/hr when operated with the duct burner at or below 38.8 MMBtu/hr heat input and shall not exceed 11.5 lbs/hr from each turbine when operated with the duct burner above 38.8 MMBtu/hr. Compliance with this limit shall be based on annual source testing (only with the duct burner operating in accordance with AQ-39).

Verification: The project owner shall provide copies of the annual source test reports to the District and the California Energy Commission CPM within 60 days after completion of the compliance or source tests.

AQ-19. Except during startups and shutdowns, 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. Compliance with this limit shall be based on a District approved calculation methodology and verified during annual source testing.

Verification: The project owner shall maintain records of the mass emissions and concentrations of each gas turbine when operating. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. A summary of exceedances,

if any, and a statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.

AQ-20. Fuel consumption by the duct burners for both turbines shall not exceed 3,881,000 MMBtu (HHV) per rolling 12-month period. Whenever the duct burners are in operation, the CEMS shall record the dates and fuel consumption for each duct burner. The CEMS shall also record the total duct burner fuel usage for each rolling 12-month period (in MMBtu). The applicant shall maintain a log that contains, at a minimum, the dates and fuel usage when one or both turbines are operated with duct firing. These records shall be maintained on site for a minimum of five years and made available to District personnel upon request.

Verification: The project owner shall maintain records of the mass emissions and concentrations of each gas turbine when operating with power augmentation. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. The fuel consumption by the duct burners for both turbines for each rolling 12-month period shall be included in the quarterly reports required in Condition AQ-38.

AQ-21. 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:

<u>Pollutant</u>	<u>Emission Limit, lbs/hr</u>
Oxides of Nitrogen, NO _x (calculated as NO ₂)	240.0
Carbon Monoxide, CO	2706
Volatile Organic Compounds, VOC	48.0

Verification: The project owner shall maintain records of the mass emissions of NO_x, CO, and VOC during startups of each gas turbine. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. A summary of exceedances, if any, and a statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.

AQ-22. When operated under startup or shutdown conditions, the emissions from each turbine shall not exceed the following emission limits, totaled per event, 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 (during startups)</u>	<u>Emission Limit, lbs/ event</u>
------------------------------------	-----------------------------------

Oxides of Nitrogen, NO _x (calculated as NO ₂)	480
Carbon Monoxide, CO	5412
Volatile Organic Compounds, VOC	96
<u>Pollutant (during shutdowns)</u>	<u>Emission Limit, lbs/ event</u>
Oxides of Nitrogen, NO _x (calculated as NO ₂)	80
Carbon Monoxide, CO	902
Volatile Organic Compounds, VOC	16

Verification: The project owner shall maintain records of the duration startups and shutdowns of each gas turbine. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. A summary of exceedances, if any, and a statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.

AQ-23. Startup for each gas turbine shall be defined as the period beginning with the introduction of fuel to the combustion turbine following a non-operational period and ending after the lesser of either 360 minutes of continuous fuel flow or when the CEMS records ten consecutive one-minute data points in compliance with the emission concentration limits of Conditions AQ-11, 14, and 19 for the gas turbine. Excluding extended startups and the first 120 minutes of all other startups, the gas turbines shall comply with a NO_x emission concentration limit of 11.8 ppmvd corrected to 15% oxygen. Compliance with this limit shall be based on CEMS data averaged over each one-hour period. For the purposes of this permit, an extended startup shall be defined as the time during any startup when the steam turbine inner casing temperature is less than or equal to 500 °F.

Verification: The project owner shall maintain records of the duration and the NO_x emission concentrations of all startups of each gas turbine. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. A summary of exceedances, if any, and a statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.

AQ-24. During startups, including extended startups as defined in Condition AQ-23, excluding the first 120 minutes of the startup, NO_x emissions from the gas turbine shall not exceed 42 ppm corrected to 15% oxygen. Compliance with this limit shall be based on CEMS data averaged over each one-hour period.

Verification: The project owner shall maintain records of the duration and the NO_x emission concentrations of all startups of each gas turbine. These records shall be maintained on site for a minimum of five years and shall be available for inspection

by representatives of the District, ARB and the Commission. A summary of exceedances, if any, and a statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.

AQ-25. Shutdown for each gas turbine shall be defined as the 60-minute period preceding the termination of fuel flow to the gas turbine.

Verification: The project owner shall maintain records of the duration of all shutdowns of each gas turbine. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. A statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.

AQ-26. Both gas turbines shall not be operated simultaneously in startup mode.

Verification: The project owner shall maintain records of the duration of all startups of each gas turbine. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. A statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.

AQ-27. For purposes of determining compliance based on source testing, the average of three subtests shall be used. For purposes of determining compliance with emission limits based on the CEMS, data collected in accordance with the CEMS protocol shall be used and averaging periods shall be as specified herein.

Verification: All records required by this written permit shall be maintained on site for a minimum of five years and made available to the District upon request.

AQ-28. 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 1-clock hour period using data collected at least once every 15 minutes when compliance is based on continuous emissions monitoring data. A valid clock hour shall be defined as one that includes at least 16 minutes of valid 1-minute data or includes a data point from at least two different quadrants that are spaced at least 15 minutes apart. A duct burner clock hour shall be defined as a valid clock hour in which the duct burner heat input exceeds 38.8 MMBtu/hr.

Verification: The project owner shall maintain records of the mass emissions and concentrations of each gas turbine when operating. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. A statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.

AQ-29. For each emission limit expressed as pounds per hour or parts per million based on a 3-hour averaging period, compliance shall be based on rolling 3-clock hour period, not including startup and shutdown periods, using data collected at least once every 15 minutes when compliance is based on continuous emissions monitoring data.

Verification: The project owner shall maintain records of the mass emissions and concentrations of each gas turbine when operating. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. A statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.

AQ-30. The Oxides of Nitrogen (NO_x) and Oxygen (O₂) CEMs shall be certified and maintained in accordance with applicable Federal Regulations including the requirements of: -Sections 75.10 and 75.12 of Title 40 -Code of Federal Regulations Part 75 (40 CFR 75) - the performance specifications of Appendix A of 40 CFR 75 -the quality assurance procedures of Appendix B of 40 CFR 75 -the CEMs protocol approved by the District. The Carbon Monoxide (CO) CEMS shall be certified and maintained in accordance with 40 CFR 60 (40 CFR Part 75, 40 CFR Part 60), and a CEMS protocol approved by the District, unless otherwise specified in this permit.

Verification: The project owner shall maintain records of all CEMS certification and maintenance. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. A statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.

AQ-31. When the CEMS is not recording data and the unit is operating, hourly NO_x emissions shall be determined in accordance with 40 CFR 75 Appendix C. Additionally, hourly CO emissions for the annual emission calculations shall be determined using the hourly emission rate recorded by the CEMS during the most recent hours in which the unit operated 3 continuous hours at no less than 80% of full power rating of each power station, either with or without duct firing.

Verification: The project owner shall maintain records of the mass emissions and concentrations of each gas turbine when operating. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. A statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.

AQ-32. Any violation of any emission standard as indicated by the CEMS shall be reported to the District's Compliance Division within 96 hours after such occurrence.

Verification: The project owner shall maintain records of any emissions exceedance of each gas turbine when operating. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. Any violation of any emission standard as indicated by the CEMS shall be included in the quarterly reports required in Condition AQ-38.

AQ-33. The CEMs shall be maintained and operated, and reports submitted, in accordance with the requirements of Rule 19.2 Sections (D), (E), (F)(2), (F)(3), (F)(4) and (F)(5) and CEMs Protocol approved by the District.

Verification: The project owner shall make the records available for inspection by representatives of the District, ARB and the Commission.

AQ-34. The District shall be notified at least two weeks prior to any changes made in CEMS software that affect the measurement, calculation or correction of data displayed and/or recorded by the CEMS.

Verification: The project owner shall make the records available for inspection by representatives of the District, ARB and the Commission. The project owner shall document any such changes in the subsequent quarterly reports required in Condition AQ-38.

AQ-35. Operating logs or Data Acquisition System (DAS) records shall be maintained to record the following:

- a. dates of all startups and shutdowns;
- b. beginning and end times, to the nearest minute, of all startups and shutdowns;
- c. fuel usage, in standard cubic feet, for each clock hour, calendar month, and 12-calendar month period;
- d. hours of daily operation; and
- e. total cumulative hours per calendar year.

Verification: The project owner shall make the records available for inspection by representatives of the District, ARB and the Commission.

AQ-36. Continuous monitors shall be installed on each turbine to monitor or calculate and record the following:

- a. gas turbine natural gas flow rate (scfh),
- b. duct burner natural gas flow rate (scfh),
- c. gas turbine heat input rate (MMBtu/hr), HHV,
- d. duct burner heat input rate (MMBtu/hr), HHV,
- e. ammonia stack concentration (ppmvd, corrected to 15% oxygen),
- f. ammonia injection rate (lbs/hr),

- g. steam turbine inner casing temperature (°F),
- h. SCR inlet temperature (°F),
- i. exhaust gas temperature (°F), and
- j. power output (gross MW).

The monitors shall be installed, calibrated, and maintained in accordance with an approved protocol. The monitors shall be in full operation at all times when the turbine is in operation.

Verification: The project owner shall make the records available for inspection by representatives of the District, ARB and the Commission.

AQ-37. The applicant shall maintain records, at least on a calendar monthly basis, of total aggregate mass emissions of NO_x, CO and VOC, in tons per year, from all emission units, at this stationary source for the previous 12-calendar month period. These records shall be made available for inspection within 30 calendar days after the end of each calendar month.

Verification: The project owner shall make the records available for inspection by representatives of the District, ARB and the Commission.

AQ-38. All records required by this written permit shall be maintained on site for a minimum of five years and made available to the District upon request. In addition, quarterly reports of information recorded by these conditions, as specified, shall be sent to the CPM.

Verification: The project owner shall maintain records of the mass emissions and concentrations of each gas turbine during commissioning, optimization, replacement and operation. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. Quarterly reports shall be sent to the California Energy Commission's CPM within 60 days after each calendar quarter.

AQ-39. This equipment shall be source tested once each permit year (annual source test) to demonstrate compliance with the emission standards specified in AQ-11, 14, 15, 17, 18, and 19 of this permit. For the purposes of this permit, a permit year is the 12-month period ending on the last day of the permit expiration month. It is the responsibility of the project owner to schedule the source test with the District. The source test shall be performed or witnessed by the District. Each annual source test shall be separated by at least 90 days from any annual source test performed in a different permit year. If this testing will be performed by someone other than the District, a source test protocol shall be submitted to the District for written approval at least 60 days prior to source testing. The source test protocol shall comply with the following requirements:

- a. Measurements of oxides of nitrogen (NO_x), carbon monoxide (CO), and stack gas oxygen content (O₂) shall be conducted in accordance with U.S. Environmental Protection Agency (EPA) Methods 7E, 10 and 3A, respectively, and the San Diego Air Pollution Control District Method 100, or alternative methods approved by the District and the EPA.
- b. Measurements of particulate matter less than 10 microns shall be conducted in accordance with the U.S. Environmental Protection Agency (EPA) Methods 201A and 202, or alternative methods approved by the District and the EPA.
- c. Measurements of volatile organic compounds (VOC) shall be conducted in accordance with San Diego Air Pollution Control District Methods 18 and/or 25A, or alternative methods approved by the District and the EPA.
- d. Measurements of ammonia emissions shall be conducted in accordance with Bay Area Air Quality Management District (BAAQMD) Method ST-1B, or alternative methods approved by the District and the EPA.
- e. Source testing shall be performed only with both the combustion turbine and duct burner in operation. The duct burner shall be operated at not less than 80% of the rated heat input unless it is demonstrated to the satisfaction of the District that the unit cannot operate under these conditions. If the demonstration is accepted, then the emissions source testing shall be performed at the highest achievable continuous heat input.
- f. Source testing shall be performed at not less than 80% of the unit's rated load unless it is demonstrated to the satisfaction of the District that the unit cannot operate under these conditions. If the demonstration is accepted, then emissions source testing shall be performed at the highest achievable continuous power level.
- g. The following additional operating characteristics shall also be measured or calculated and recorded:
 - gas turbine natural gas flow rate (scfh),
 - duct burner natural gas flow rate (scfh),
 - fuel higher heating value (Btu/scf),
 - gas turbine heat input rate (MMBtu/hr),
 - duct burner heat input rate (MMBtu/hr),
 - ammonia injection rate (lbs/hr),
 - SCR inlet temperature (°F),
 - exhaust gas temperature (°F),
 - power output (gross MW).

Verification: The project owner shall make the records available for inspection by representatives of the District, ARB and the Commission.

AQ-40. A Relative Accuracy Test Audit (RATA) and all other required certification tests shall be performed and completed on the CEMS in accordance with applicable provisions of 40 CFR part 75 Appendix A and B performance specifications. At least 30 days prior to the test date, the project owner shall submit a test protocol to the District for approval. Additionally, the District shall be notified a minimum of 21 days prior to the test so that observers may be present.

Verification: At least 30 days prior to the test date, the project owner shall submit a test protocol to the District for approval and the Commission for information. The project owner shall make the records available for inspection by representatives of the District, ARB and the Commission.

AQ-41. Within 45 days after completion of the renewal source test or RATA, a final test report shall be submitted to the District for review and approval.

Verification: Within 45 days after completion of the renewal source test or RATA, a final test report shall be submitted to the District and the Commission for review and approval. The project owner shall make the records available for inspection by representatives of the District, ARB and the Commission.

AQ-42. Beginning with the start of the ongoing emission reduction monitoring period as defined in "Alternative Mobile Source Emission Reduction Program for Replacing Heavy and Medium Heavy-Duty Diesel Powered Vehicles and Repowering of Marine Vessels Under Rule 27 (c)(1)(vi)" as approved on September 8, 2000 (herein referred to as the Alternative MERC Program), the owner or operator shall, on or before the last day of the second calendar month following the end of each ongoing emission reduction monitoring year:

- a. for each ongoing emission reduction monitoring year, based on the quarterly activity levels submitted by the mobile source owners and the applicable calculation method specified in the Alternative MERC Program, perform a calculation of the annual average and annual aggregate ongoing emission reductions and the ongoing emission reduction deficit, if any, for the MERCs surrendered to offset the facility's emissions;
- b. provide an annual report to the District that summarizes the annual average ongoing emission reductions for each MERC, aggregate ongoing emission reductions, and the ongoing emission reduction deficit, if any, and provides supporting calculations and documentation; and
- c. if the calculated annual ongoing emission reduction deficit is positive, notify the District, provide a compliance schedule to correct the ongoing

emission reduction deficit, and correct the ongoing emission reduction deficit in accordance with Subsection (h)(4) of the Alternative MERC Program.

Verification: The project owner shall submit an annual MERC report to the District and the CPM on or before the last day of the second calendar month following the end of each ongoing emission reduction monitoring year.

- AQ-43.** Beginning with the second calendar year following the calendar year that the facility commences operations, the owner or operator shall, on or before March 1 of each calendar year:
- a. based on information supplied by the mobile source owners for each MERC surrendered to the District, notify the District if the MERC fractional employment is less than 0.8;
 - b. based on information supplied by the mobile source owners for each MERC surrendered to the District, notify the District if the MERC fractional employment in primary service is less than 0.8; and
 - c. if one or more MERCs fractional employment or fractional employment in primary service is less than 0.8, provide a compliance schedule to correct any MERC shortfall and correct any MERC shortfall in accordance with Subsection (j)(4) of the Alternative MERC Program.

Verification: The project owner shall submit a report on MERC monitoring to the District and the CPM on or before March 1 of each calendar year. The project owner shall make the records available for inspection by representatives of the District, ARB and the Commission.

- AQ-44.** On or before the expiration date, if any, of a MERC surrendered to offset the NOx emissions from this facility, additional Class A emission reduction credits equivalent to the expiring MERC shall be surrendered to the District to offset project emissions unless project emissions are reduced such that 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. If the project NOx emissions limit is reduced to 1.0 ppm, 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.

Verification: The project owner shall make the records available for inspection by representatives of the District, ARB and the Commission. A statement showing

compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.

RETAINED DISTRICT CONDITIONS NOT INCLUDED IN PTO

AQ-45. The exhaust stacks for each turbine power station shall be at least 160 feet (48.8 meters) in height.

Verification: None required.

AQ-46. For the purposes of this permit, the period described as “on-going” operation of the turbines shall commence immediately following the end of the Commissioning Period. Condition Nos. AQ-9, 10, 23, 36, 37, and 51 shall continue to apply during on-going operations.

Verification: The project owner shall maintain records of the mass emissions and concentrations of each gas turbine when operating. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. A statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.

AQ-47. The project owner shall obtain any necessary District permits for all ancillary combustion equipment, including emergency engines, prior to on-site delivery of the equipment.

Verification: The project owner shall provide copies of the design details of the ancillary equipment to be installed, including emergency engines to the CPM and the District at least 90 days prior to the delivery of the equipment to the project site.

AQ-48. The exhaust stacks for each turbine power station shall be equipped with source test ports and platforms to allow for the measurement and collection of stack gas samples consistent with all approved test protocols. The ports and platforms shall be constructed in accordance with District Method 3A, Appendix Figure 2.

Verification: None required.

AQ-49. The project owner shall maintain a log of all startups and shutdowns for each turbine. The log shall contain, at a minimum, the dates and times of each startup or shutdown, and the duration of each startup or shutdown. This log shall be maintained on site for a minimum of five years and made available to District personnel upon request.

Verification: The project owner shall maintain records of all startups and shutdown of each gas turbine. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. The startup and shutdown log shall be included in the quarterly reports required in Condition AQ-38.

AQ-50. To ensure compliance with District Rule 69.3.1 and except during any period of time for which a variance from Rule 69.3.1 has been granted by the Air Pollution Control District Hearing Board, when operating without any post-combustion air pollution control equipment, the emissions of oxides of nitrogen (NO_x), calculated as nitrogen dioxide, from each turbine shall not exceed 19.8 parts per million by volume on a dry basis (ppmvd) calculated over a 1-hour averaging period and corrected to 15% oxygen, excluding startups and shutdowns as defined in District Rule 69.3.1.

Verification: The project owner shall maintain records of the NO_x emission concentrations of each gas turbine when operating with post-combustion air pollution control equipment. These records shall be maintained on site for a minimum of five years and shall be available for inspection by representatives of the District, ARB and the Commission. A summary of exceedances, if any, and a statement showing compliance status with this condition shall be included in the quarterly reports required in Condition AQ-38.