CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512

DATE: March 8, 2007

TO: Interested Parties

FROM: Connie Bruins, Compliance Project Manager

SUBJECT: Inland Empire Energy Center Project (01-AFC-17C)
Staff Analysis of Proposed Modifications to Amend Air Quality Conditions of Certification

On October 6, 2006, the California Energy Commission received a petition from Inland Empire Energy Center, LLC, to amend the Energy Commission Decision for the Inland Empire Energy Center Project.

The Inland Empire Energy Center (IEEC) Project is a 810 MW combined-cycle power plant located near the community of Romoland, in Riverside County. The project was certified by the Energy Commission on June 22, 2005. Construction of the project began on August 26, 2005 and is currently approximately 45 percent complete.

The proposed modifications will allow Inland Empire Energy Center, LLC to make the Commission's Decision consistent with the South Coast Air Quality Management District's (District) permit. Specifically, Inland Empire Energy Center, LLC requests to amend air quality conditions of certification as follows:

1. Reduce the emission limits for particulate matter less than 10 microns in diameter (PM10) and corresponding emission reduction credit requirements obtained from the District's Priority Reserve.
2. Increase nitrogen oxides (NOx) emission limits during commissioning.
3. Increase the NOx and carbon monoxide (CO) emission limits for startup/shutdown activities.
4. Allow elevated combustor-tuning emissions similar to startup/shutdown activities.
5. Increase the minimum RECLAIM trading credit holding requirements for NOx during the first compliance year of operation.
6. Remove the requirement to conduct source tests for PM10 emissions from the turbines at low loads.
7. Remove the requirement to conduct source tests for PM10, volatile organic compounds (VOC), and sulfates (Sox) emissions from the auxiliary boiler.
8. Remove the requirement to conduct source tests at low auxiliary boiler loads.
9. Track ammonia emissions with calculations instead of using a Continuous Emission Monitoring Device.
10. Change the date by which an agreement between the project owner and Federal Land Managers must be reached regarding participation in a visibility monitoring project.
11. Correct other typographical errors and minor internal inconsistencies between the Energy Commission's Decision and the current District Permit for the IEEC Project.

Inland Empire Energy Center, LLC affirms that there will be no significant adverse environmental impacts associated with the proposed changes.

Energy Commission staff reviewed the petition and assessed the impacts of this proposal on environmental quality, public health and safety, and proposes revisions to existing Air Quality Conditions of Certification AQ-SC1, -SC8, -SC9, -SC13, -SC16, AQ-2, -3, -8 through -11, -13, -15 through -27, -32, -35, -36, -38, -40 through -48, -50, -53 through -55, and -58. It is staff's opinion that, with the implementation of revised conditions, the project will remain in compliance with applicable laws, ordinances, regulations, and standards and that the proposed modifications will not result in a significant adverse direct or cumulative impact to the environment (Title 20, California Code of Regulations, Section 1769).

The amendment petition has been posted on the Energy Commission's webpage at www.energy.ca.gov/sitingcases/inlandempire/index.html. Staff's analysis is enclosed for your information and review. Staff's analysis and the order (if the amendment is approved) will also be posted on the webpage. Energy Commission staff intends to recommend approval of the petition at the April 11, 2007, Business Meeting of the Energy Commission. If you have comments on this proposed modification, please submit them to me at the address below by April 9, 2007.

Connie Bruins, Compliance Project Manager
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Comments may be submitted by fax to (916) 654-3882, or by e-mail to cbruins@energy.state.ca.us. If you have any questions, please contact me at (916) 654-4545.

Enclosure

INLAND EMPIRE ENERGY CENTER (01-AFC-17C)
STAFF ANALYSIS OF PETITION TO AMEND VARIOUS AIR QUALITY CONDITIONS OF CERTIFICATION AIR QUALITY

Brewster Birdsall
February 14, 2007

INTRODUCTION

The current petition to amend several air quality Conditions of Certification (COCs) was submitted by Inland Empire Energy Center, LLC (IEEC) on October 5, 2006. The current COCs were set by the June 22, 2005 Commission Order Approving a Petition to Change to the GE 107H Combined-Cycle System (CEC 2005b).

The Energy Commission approval in June 2005 occurred before the South Coast Air Quality Management District (SCAQMD) issued a final permit for the modified IEEC project. At the time of the June 8, 2005 Staff Assessment, staff had reviewed a Preliminary Determination of Compliance (PDOC) issued by SCAQMD on May 17, 2005 (SCAQMD 2005a). Thus, when staff recommended approval of the COCs in June 2005, the PDOC was still in the midst of a public review that ended July 1, 2005, and the approval order noted that the SCAQMD might later change the conditions (CEC 2005b). Many conditions of the PDOC were indeed revised in the initial Facility Permit issued August 5, 2005 (SCAQMD 2005a) and further revised to reflect changes requested by the applicant. The most recent modification to the IEEC Facility Permit was issued by SCAQMD on July 1, 2006 (SCAQMD 2006a). The revised conditions trigger the need for the present changes to the COCs.

The present amendment shows how the conditions of the June 2005 Commission Order would change to reflect SCAQMD's current Facility Permit and IEEC's proposed modifications (SCAQMD 2006a).

PROPOSED AMENDMENT

The subject amendment would involve numerous changes to the current COCs. IEEC proposes to amend the conditions to:

1. Reduce the emission limits for particulate matter less than 10 microns in diameter (PM10) and corresponding emission reduction credit requirements obtained from the District's Priority Reserve.
2. Increase nitrogen oxides (NOx) emission limits during commissioning.
3. Increase the NOx and carbon monoxide (CO) emission limits for startup/shutdown activities.
4. Allow elevated combustor-tuning emissions similar to startup/shutdown activities

5. Increase the minimum RECLAIM trading credit holding requirements for NOx during the first compliance year of operation.
6. Remove the requirement to conduct source tests for PM10 emissions from the turbines at low loads.
7. Remove the requirement to conduct source tests for PM10, volatile organic compounds (VOC), and sulfates (Sox) emissions from the auxiliary boiler.
8. Remove the requirement to conduct source tests at low auxiliary boiler loads.
9. Track ammonia emissions with calculations instead of using a Continuous Emission Monitoring Device.
10. Change the date by which an agreement between the project owner and Federal Land Managers must be reached regarding participation in a visibility monitoring project.
11. Correct other typographical errors and minor internal inconsistencies between the Energy Commission's Decision and the current District Permit for the IEEC Project.

The changes in the SCAQMD permit conditions affect many of the current COCs. Any proposed changes to increase emission limits and changes to remove or replace testing or monitoring requirements are fully described in this analysis. These changes primarily affect COCs related to commissioning emissions (**AQ-SC13**), combustion turbine source testing (**AQ-8**), startup/shutdown emissions (**AQ-18**), auxiliary boiler source testing (**AQ-32**), and ammonia emission monitoring (**AQ-26 and AQ-46**).

Other permit changes are minor and/or administrative in nature They are discussed in more detail in IEEC's petition and supporting filings with the SCAQMD. This analysis concludes by showing the current COCs and how this license amendment would change the COCs.

PROPOSED REVISIONS TO AQ-SC13

IEEC anticipates that the short-term maximum commissioning emissions of NOx would be equivalent to those caused by startup or shutdown of a combustion turbine, or 408 lb/hr per unit. Staff Condition of Certification **AQ-SC13** currently limits the combined NOx emission rate during commissioning to a level of 605.8 lb/hr for the combination of one unit undergoing commissioning (maximum of 587 lb/hr) plus one unit in normal operation (18.8 lb/hr). IEEC requests that the combined limit be increased to 816 lb/hr. The proposed commissioning emission limit of 816 lb/hr NOx would allow simultaneous startup of both units, in a manner similar to that allowed for routine operation, during the commissioning activities. The changes to **AQ-SC13** would provide more flexibility for the transition from commissioning to routine operations.

Routine operation of the facility includes combined startups of both combustion turbines. The air quality impacts of both turbines in simultaneous startup mode are described in the June 2005 Staff Assessment, and the combined limit of 816 lb/hr is currently reflected in COC **AQ-SC14**, which would be unchanged by the proposed revisions. As part of the June 2005 Staff Assessment, staff determined that applying the combined limit of 816 lb/hr during simultaneous startups would not cause or contribute to a violation of the hourly nitrogen dioxide (NO_2) ambient air quality standard. The

information presented at that time (in Table 8 of CEC 2005a) shows that the proposed changes to **AQ-SC13** would not cause or contribute to a violation of the annual NO_2 ambient air quality standard.

IEEC also proposes to revisit the NOx emission calculations for the facility during the first year including commissioning and during subsequent years. IEEC found that SCAQMD and IEEC used different operating assumptions to calculate facility NOx emissions. Small differences in the approach to calculate hourly NOx emissions were magnified when carried through to the annual estimate of NOx emissions. Facility NOx emissions are subject to compliance with SCAQMD's RECLAIM program, which requires IEEC to hold RECLAIM Trading Credits (RTCs) to match and offset the emissions. Because the current SCAQMD Facility Permit uses IEEC estimates of annual facility NOx emissions, COCs that quantify the RTC requirements must be changed. The proposed increase in allowable NOx emissions during commissioning increases the annual NOx emissions and RTC requirements for the first year of operation (**AQ-27**), and the calculation differences decrease the annual NOx emissions and RTC requirements for subsequent years of operation (**AQ-SC9**, **AQ-27**, and **AQ-47**). The proposed revisions to allow higher first-year NOx emissions (**AQ-27**) could affect previously-analyzed project impacts by increasing impacts to annual NO_2 concentrations by no more than ten percent. Such an increase would not cause a violation of the annual NO_2 ambient air quality standard.

Based on previously analyzed emissions, the proposed changes in commissioning emission rates would not cause any additional air quality impacts or adversely affect the ability of the project to comply with LORS.

PROPOSED REVISIONS TO AQ-8

IEEC requests that source testing requirements for turbine PM10 emissions be established only for full loads. COC **AQ-8** currently requires PM10 source testing at operating loads of 100, 75, and 50 percent of maximum load. IEEC argues that conducting the 4- to 6-hour PM10 source tests, which must be conducted in triplicate, would unnecessarily reduce plant output. SCAQMD removed the PM10 testing requirements at multiple loads and retained the requirement to test at 100 percent of maximum load.

Use of natural gas as the exclusive fuel, the results of the full load source tests, and continuous monitoring of other pollutants for compliance with permit limits is likely to assure compliance with applicable PM10 emission limits. Other similar facilities are not required to test for PM10 at differing load levels. As such, the proposed changes in testing would not cause any additional air quality impacts or adversely affect the ability of the project to comply with LORS.

PROPOSED REVISIONS TO AQ-18

IEEC proposes revisions to COC **AQ-18** that would allow elevated levels of emissions during "combustor-tuning" activities, similar to those allowed during startups or

shutdowns. Combustor-tuning activities are defined by the IEEC in the proposed revisions as: ". . .all testing, adjusting, tuning, and calibration activities recommended by the turbine manufacturer to ensure safe, reliable, and in-specification operation of the turbine." For IEEC, the turbine manufacturer is General Electric, the current owner of IEEC LLC.

Staff views combustor-tuning as an activity that must be conducted expeditiously and with minimum effects to emissions. Because elevated emissions would be allowed during combustor-tuning, the time spent by the project owner in combustor-tuning mode must be limited. **AQ-18** includes revisions to limit combustor-tuning activities to no more than six hours per day per turbine. IEEC expects that tuning would occur during commissioning and also following future major maintenance activities of the combustion systems. IEEC is not able to predict in advance the number of hours per month that may be associated with combustor-tuning activities. Although there is no schedule for combustion system maintenance or subsequent tuning, IEEC expects combustor-tuning activities to occur on an infrequent basis (IEEC 2006b). IEEC would document combustor-tuning in the plant logs. Staff recommends revising the SCAQMD-approved condition and IEEC's proposal for **AQ-18** to ensure proper recordkeeping of combustor-tuning activities.

Staff explored the feasibility of including additional monthly or annual time limits on combustor-tuning activities, but IEEC believes that the emission limits for routine operations, which include combustor tuning in **AQ-18**, would sufficiently limit impacts. The previously established monthly and annual emission limits from **AQ-13** and **AQ-27** would apply, and emission limits in **AQ-18** would include revisions to limit the combined short-term emissions from startup/shutdown and combustor-tuning activities to levels that were previously established and analyzed in the June 2005 Staff Assessment (CEC 2005a) for **AQ-SC14**. Because short-term hourly emissions from combustor-tuning activities would be limited to previously analyzed levels (e.g., 408 lb/hr NOx and 95 lb/hr CO per turbine) and emission limits in **AQ-13** and **AQ-27** would not change notably, allowing combustor-tuning activities as in the revised **AQ-18** would not cause any additional air quality impacts or adversely affect the ability of the project to comply with LORS.

PROPOSED REVISIONS TO AQ-26 AND AQ-46

IEEC proposes to remove the requirements for a continuous emission monitoring device for ammonia on the turbines and boiler in **AQ-26** and **AQ-46**, respectively. Instead of a continuous monitoring device, the proposal to track ammonia emissions via a mass balance calculation has been proven reliable in the past. The mass balance calculation uses data on the ammonia injection flow rate and the reduction in NOx across the selective catalytic reduction (SCR) system to derive an ammonia emission rate. IEEC believes that the proposed revisions would not substantially diminish the ability to determine compliance with the ammonia emission limits in **AQ-25** and **AQ-45**, which would not be changed by the proposed revisions.

Staff would prefer to keep these requirements to operate a continuous emission monitoring device as they were established in the June 2005 Staff Assessment (CEC 2005a) and Energy Commission approval order (CEC 2005b). Continuous monitoring of ammonia has been required on some, but not all, similar facilities, and staff would prefer to help introduce this monitoring technology into more common use. Although the petition claims there is "insufficient operational information" to assure reliability of these monitoring systems, the March 2003 Energy Commission decision for Magnolia Power Project in the City of Burbank required such an emission monitoring device for ammonia, as did the May 2000 decision for the High Desert Power Project. However, staff recognizes that other power plants reviewed in recent years in the SCAQMD and neighboring air basins do not include any continuous monitoring requirement for ammonia (e.g., El Segundo Power Plant Project, Energy Commission decision February 3, 2005; Malburg Generating Station Project, Energy Commission decision May 28, 2003; and Pastoria Energy Facility Expansion, Energy Commission decision December 18, 2006). Therefore, staff is agreeable to the proposed change in monitoring method because it would not cause any additional air quality impacts or adversely affect the ability of the project to comply with LORS

PROPOSED REVISIONS TO AQ-32

IEEC proposes to revise **AQ-32** to remove the requirement to conduct source tests for SOx, VOC, and PM10 emissions from the auxiliary boiler. The monitoring requirements in **AQ-32** originated with the February 2003 SCAQMD FDOC. They continued to appear in the May 2005 PDOC and the June 2005 Staff Assessment, but the requirements were removed at the request of IEEC before the SCAQMD issued the initial RECLAIM/Title V Facility Permit on August 5, 2005. The petition describes the auxiliary boiler as a "relatively minor source of emissions at this facility," but staff believes that removing the testing and monitoring requirements is a potentially significant change in permit conditions. The SCAQMD Title V rules [Rule 3000(b)(28)] defines a "significant permit revision" as a change in Title V permit conditions as one that involves a "relaxation of any monitoring, recordkeeping, or reporting requirement." Because these requirements were removed before the SCAQMD issued the initial Title V Facility Permit on August 5, 2005, the change did not qualify as a "significant permit revision."

Emission limits for SOx, VOC, and PM10 would continue to apply (e.g., **AQ-36**), but IEEC would no longer have a direct method for verifying compliance of the boiler with these limits. The auxiliary boiler is also subject to a VOC emission limit of 10 ppmv in **AQ-44** and a PM10 emission limit 0.1 grains per standard cubic foot (gr/scf) from SCAQMD Rule 409 in **Attachment Air Quality 1 – AQ-SC16**. These limits are federally enforceable through the SCAQMD's Title V program.

With the proposed revisions, no initial performance test or periodic source testing for SOx, VOC, or PM10 would occur. Indirect parameters would be used for determining whether the auxiliary boiler complies with the SOx, VOC, and PM10 limits.

Indirect parameters are often used by air quality agencies to ensure compliance of smaller sources with permit limits. Examples of indirect parameters are temperature data, pressure readings, or emission rates of other pollutants (NOx and CO) that indicate proper operation. Although there would be no source testing or other type of emission monitoring for SOx, VOC, and PM10, the auxiliary boiler would be fired exclusively on natural gas and emissions of NOx and CO would be monitored.

Testing auxiliary boiler SOx emissions would be replaced by fuel monitoring that is required for facility-wide compliance Natural gas sulfur content would be limited to a maximum H_2S content of 0.25 gr/100 scf (**AQ-12** and **ATTACHMENT AIR QUALITY 1 – AQ-SC16, Equipment Description**), which would ensure that boiler SOx emissions comply with the emission limits. Initial and periodic sampling of the natural gas for H_2S content is required facility-wide (**AQ-8** and **AQ-9**). This information will be used to determine compliance with the SOx limit.

Source tests for boiler VOC and PM10 emissions would be replaced by testing NOx and CO (**AQ-32**) and the use of a continuous emission monitoring system (CEMS) for tracking ongoing CO (**AQ-37**) and NOx (**AQ-38**). Monitoring CO is a way of tracking combustion efficiency. Like CO, VOC and PM10 emissions also depend on combustion efficiency. Because an improperly tuned boiler with diminished combustion efficiency will result in increased CO emissions, monitoring CO helps to ensure that good combustion practice occurs. Ensuring good combustion practices for minimizing VOC emissions is especially important because there may be a tendency for the low-NOx burners to reduce combustion efficiency (by minimizing high temperatures at the flame).

Staff prefers to use direct source testing to determine compliance with quantitative limits such as the 10 ppm VOC limit in **AQ-44**. Although SCAQMD issued the RECLAIM/Title V Facility Permit without requirements to conduct source tests for the VOC and PM10, staff recommends that VOC source testing be conducted. Testing VOC would provide insight to the likelihood of PM10 compliance emission limits because most particulate matter from natural gas combustion tends to be in the form of unburned hydrocarbons. Because there would be no other means of verification for the 10 ppm VOC limit in **AQ-44**, staff recommends keeping the VOC testing requirement in **AQ-32** from the approval order (CEC 2005b). This differs from the SCAQMD-approved version of this condition. IEEC suggested in an email January 19, 2007 that the requirement be added to the "Verification" of **AQ-32**, but staff recommends keeping it within the Condition of Certification.

Staff's recommended VOC test and ongoing monitoring of boiler CO emissions for good combustion practice would provide enough information to directly and indirectly determine compliance with the existing VOC and PM10 limits. With the proposed revisions to **AQ-32**, no emission increases would be permitted. The proposed changes in testing would not cause any additional air quality impacts or adversely affect the ability of the project to comply with LORS.

PROPOSED REVISIONS TO EQUIPMENT DESCRIPTION

The Facility Permit and COCs include an Equipment Description that summarizes emission limits (**ATTACHMENT AIR QUALITY 1 – AQ-SC16, Equipment Description**). The following revisions would not cause any additional air quality impacts or adversely affect the ability of the project to comply with LORS.

- The Equipment Description has been revised by SCAQMD at the request of IEEC to reflect a recalculated, lower NOx limitation from the requirements New Source Performance Standards (NSPS) for the combustion turbines (40 CFR 60, Subpart GG) and the lower PM10 limits requested by IEEC.
- The Equipment Description also shows a more accurate auxiliary boiler heat input rating based on an updated design.

PROPOSED REVISIONS TO OTHER CONDITIONS OF CERTIFICATION

IEEC proposes a number of additional changes that were categorized by SCAQMD as administrative revisions or minor modifications to the permit conditions. Staff considers these changes to be minor and non-controversial. The following revisions would not cause any additional air quality impacts or adversely affect the ability of the project to comply with LORS.

- Remove the requirement in **AQ-SC1** for the Air Quality Construction Mitigation Manager and other air quality construction mitigation monitors to have a current certification for visible emission monitoring. The revision would not change or relax dust control requirements (**AQ-SC3**) or the prohibition against causing visible dust emissions beyond the property boundary (**AQ-SC4**).
- Reduce the allowable PM10 emissions due to a decrease in the predicted emission rate for the gas turbines (**AQ-SC9** and **AQ-13**).
- Change calculations for facility-wide annual NOx emissions and RTC holding requirements. These changes are introduced above in relation to commissioning emissions under the discussion for **AQ-SC13**, and they show that the facility would comply with hourly emission limits previously established in **AQ-SC14**. Limits for normal operation in **AQ-22** would not change. The revised NOx calculations result in revisions to COCs that quantify the RTC requirements (**AQ-SC9**, **AQ-27**, and **AQ-47**). Because the changes in the anticipated annual NOx emissions and RTC holding requirements would be minor, the impact would not be substantially different from that described in the June 2005 Staff Analysis.
- Adjust the timing of the requirement for the U.S. Forest Service Memorandum of Understanding for visibility monitoring, the SCAQMD extended the time needed to establish the agreement (**AQ-2**).
- Revised factors used in tracking monthly emissions are proposed in order to more accurately reflect startup emissions of VOC and CO emissions before CEMS certification (in **AQ-13**) Use of a separate VOC factor for startups would more

accurately track VOC, and the requirement to track CO emissions with a CEMS would remain in place (**AQ-15**).

- Revise the timing of the CEMS installation requirements and testing. This affects gas turbine CEMS requirements in **AQ-15** and **AQ-16**) and auxiliary boiler CEMS requirements in **AQ-38**. IEEC requested the changes because of its goal to conduct CEMS certification tests at the end of commissioning and because test reports can take up to 60 days to complete after the test is finished. SCAQMD revised the requirements to allow this flexibility and clarify when the testing should occur.
- Revise the auxiliary boiler fuel use limitation to be stated on a monthly rather than yearly basis (in **AQ-35**). The monthly emission limits for the boiler in **AQ-36** and **AQ-47** would continue to apply. This change is appropriate because ERC requirements are based on worst-case monthly emissions rather than annual emissions. A typographical error in the VOC limit of **AQ-36** would also be corrected.
- Clarify the ammonia tank relief valve pressure setting (**AQ-55**) as a minimum pressure setting rather than exact limit.
- Add a new condition (**AQ-58**) to establish cumulative operating limits for both gas turbines and the auxiliary boiler The combined limits would effectively limit operation of the auxiliary boiler to 12 hours per day during full-time operation of both gas turbines, while allowing more than 12 hours per day of auxiliary boiler use when the gas turbines are non-operational. IEEC requested this operating limit in conjunction with the lower anticipated holdings of emission reduction credits from the SCAQMD Priority Reserve in **AQ-SC9** and the lower PM10 emission limits in **AQ-13**.
- Other typographical inconsistencies and updates in terminology regarding the equipment, fuels, and testing requirements are included in the proposed COC revisions, consistent with the IEEC petition and the SCAQMD Facility Permit.

CONCLUSIONS

With the exception of AQ-32, the requested changes in COCs would conform with applicable Federal, State, and SCAQMD air quality laws, ordinances, regulations, and standards, and the amended project would not cause significant air quality impacts, provided that the following Conditions of Certification are included. These conditions were reviewed and approved by the SCAQMD in permit revisions between August 2005 and June 2006. Staff recommends that the revised COCs be approved as shown below.

PROPOSED CHANGES TO THE CONDITIONS OF CERTIFICATION

AQ-SC2 through **AQ-SC6 (Staff Conditions – Construction)** and **AQ-SC7 (Staff Conditions – Operation)** would remain as in the original decision (CEC 2003b).

All other conditions pertaining to construction operation are reprinted here, with revisions and renumbering made necessary by the amendment.

Deleted text is shown in ~~strikethrough~~, added text **bold** and double **underlined.**

STAFF CONDITIONS – CONSTRUCTION

AQ-SC1 The project owner shall fund all expenses for an on-site Air Quality Construction Mitigation Manager (AQCMM) who shall be responsible for maintaining compliance with conditions **AQ-SC2** through **AQ-SC6** for the entire project site and linear facility construction. The on-site AQCMM may delegate responsibilities identified in Conditions **AQ-SC1** through **AQ-SC6** to one or more air quality construction mitigation monitors. The on-site AQCMM shall have access to areas of construction of the project site and linear facilities, and shall have the authority to appeal to the CPM to have the CPM stop any or all construction activities as warranted by applicable construction mitigation conditions. ~~The on-site AQCMM, and any air quality construction mitigation monitors responsible for compliance with the requirements of **AQ-SC4**, shall have a current certification by the California Air Resources Board for Visible Emission Evaluation prior to the commencement of ground disturbance.~~ The AQCMM may have other responsibilities in addition to those described in this condition. The on-site AQCMM shall not be terminated without written consent of CPM.

Verification: At least 60 days prior to the start of ground disturbance, the project owner shall submit to the CPM, for approval, the name~~, current CARB Visible Emission Evaluation certificate,~~ and contact information for the on-site AQCMM and air quality construction mitigation monitors.

STAFF CONDITIONS – OPERATION

AQ-SC8 The project owner shall submit to the CPM ~~and District Executive Officer~~ Quarterly Operation Reports, no later than 30 days following the end of each calendar quarter, that include operational and emissions information as necessary to demonstrate compliance with Conditions **AQ-SC11**, **AQ-SC12**, **AQ-SC14**, **AQ-SC15**, **AQ-SC17**,and **AQ-1** through **AQ-58**~~**AQ-57**~~, as applicable. The Quarterly Operation Report will specifically note or highlight incidences of noncompliance.

Verification: The project owner shall submit the Quarterly Operation Reports to the CPM ~~and APCO~~ no later than 30 days following the end of each calendar quarter.

AQ-SC9 The project owner shall provide emission reduction credits to offset turbine, auxiliary boiler, and standby/emergency equipment NOx, CO, VOC, SOx, and PM_{10} emissions in the form and amount required by the District. RECLAIM Trading Credits (RTCs) shall be provided for NOx as necessary to demonstrate compliance with **AQ-27, AQ-47, AQ-51, and AQ-52**. Emission reduction credits (ERCs) shall be provided for CO (822 lb/day, includes offset ratio of 1.2) and VOC (307 lb/day, includes offset ratio of 1.2). Emission reduction credits for SOx (91 lb/day) and PM_{10} (~~503~~ **379** lb/day) shall be obtained from the SCAQMD Priority Reserve.

The project owner shall surrender the ERCs for CO and VOC from among those that are listed in the table below or a modified list, as allowed by this condition. If additional ERCs are submitted, the project owner shall submit an updated table including the additional ERCs to the CPM. The project owner shall request CPM approval for any substitutions, modifications, or additions of credits listed.

Prior to commencement of construction, the project owner shall obtain sufficient RTCs to satisfy the District's requirements for the first year of operation.

The CPM, in consultation with the District, may approve any such change to the ERC list provided that the project remains in compliance with all applicable laws, ordinances, regulations, and standards, the requested change(s) will not cause the project to result in a significant environmental impact, and the District confirms that each requested change is consistent with applicable federal and state laws and regulations. The CPM may also consult the U.S. EPA to determine compliance of credits.

Pollutant	Quantity	(units)	ERC# or Offset Strategy
NOx	~~322,988~~ **322,684**	lb	2006-2010+, Coastal Zone 1, Inland Zone 2 (as listed in Ex. 2, p. 5.1-54.)
CO	677	lb/day	#AQ003178
CO	144	lb/day	#AQ004233
CO	3	lb/day	#AQ004222
CO	2	lb/day	#AQ004417
VOC	307	lb/day	#AQ003069
PM10	~~503~~ **379**	lb/day	Through Priority Reserve.
SOx	14	lb/day	#AQ005311
SOx	79	lb/day	Through Priority Reserve.

Verification: The project owner shall submit to the CPM records showing that the project's offset requirements have been met 15 days prior to initiating construction for

Priority Reserve credits and RTCs, and 30 days prior to turbine first fire for traditional ERCs. If the CPM approves a substitution or modification to the list of ERCs, the CPM shall file a statement of the approval with the project owner and commission docket. The CPM shall maintain an updated list of approved ERCs for the project.

AQ-SC13 The project owner shall minimize emissions of carbon monoxide and nitrogen oxides from the gas turbines to the maximum extent possible during the commissioning period. During the commissioning period, the project owner shall limit the combined CO emission rate for the two gas turbines to 794.2 lb/hr (777 lb/hr commissioning plus 17.2 lb/hr baseload) and limit the combined NOx emission rate for the two gas turbines to ~~605.8~~ **816** lb/hr (~~587 lb/hr commissioning plus 18.8 lb/hr baseload~~ **408 lb/hr for each**).

Verification: See the verification for Condition **AQ-17**.

AQ-SC15 The gas turbines shall be fired on natural gas that results in emissions of less than 1.83 lb/hr SOx for each gas turbine, averaged over three hours.

Verification: The project owner shall compile hourly SOx emissions data for each gas turbine. The hourly emission data shall be calculated using the emission factor specified in Condition **AQ-13**. The emissions data shall be submitted to the CPM in the Quarterly Operation Report (**AQ-SC8**).

AQ-SC16 The project owner shall install and operate the equipment so that it does not exceed the emission limits set forth in the Equipment Description portion of Section H of the facility permit issued by the District. The current Equipment Description, as shown in the ~~May 2005 Determination of Compliance~~ **July 1, 2006 Facility Permit**, is attached as **Attachment Air Quality 1 – AQ-SC16, Equipment Description**.

Verification: The project owner shall submit to the CPM emissions data demonstrating compliance with this condition as part of the Quarterly Operation Report (**AQ-SC8**). The project owner shall submit to the CPM all permit changes, whether initiated by the project owner or the District, pursuant to Condition **AQ-SC7**.

DISTRICT CONDITIONS – DETERMINATION OF COMPLIANCE

Facility Conditions

AQ-2 The **operator shall operate and maintain this equipment according to the following requirements** ~~equipment is subject to the applicable requirements of the following rules or regulations~~:

Within ~~6~~ **12** months of permit issuance, the ~~facility~~ **Permittee** will sign a Memorandum of Understanding with the U.S. Forest Service to participate in a visibility monitoring project, the results of which will be used to establish a visibility baseline in nearby Class 1 Areas. (SCAQMD E193-3)

Verification: The project owner shall make the U.S. Forest Service Memorandum of Understanding available for inspection by representatives of the District, CARB and the Commission upon request.

AQ-3 The operator shall not ~~purchase or~~ burn diesel **fuel** ~~oil~~ containing sulfur compounds in excess of 15 ppm by weight as supplied by the supplier. (SCAQMD F14-1)

Verification: The project owner shall make fuel oil purchase, MSDS or other fuel supplier records containing diesel fuel sulfur content available for inspection by representatives of the District, CARB and the Commission upon request.

Gas Turbines and SCR

Conditions of Certification AQ-5 through AQ-28 apply individually to each turbine/HRSG unit unless otherwise identified.

AQ-8 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
NO_x emissions	District Method 100.1	1 hour	Outlet of the SCR
CO emissions	District Method 100.1	1 hour	Outlet of the SCR
SO_x emissions	Approved District Method	District Approved Averaging Time	Fuel Sample
VOC emissions	Approved District Method	1 hour	Outlet of the SCR
PM emissions	Approved District Method	District Approved Averaging Time	Outlet of the SCR
NH_3 emissions	District Method 207.1 and 5.3 or EPA Method 17	1 hour	Outlet of the SCR

The test shall be conducted after District approval of the source test protocol, but no later than 180 days after initial start-up. The District shall be notified of the date and time of the test at least 10 days prior to the test.

The test shall be conducted to determine the oxygen levels in the exhaust In addition, the tests shall measure the fuel flow rate (CFH), the flue gas flow rate, and the **combined** gas turbines **and steam turbine** generating output in MW **shall also be recorded if applicable**.

The test shall be conducted in accordance with a District approved source test protocol. The protocol shall be submitted to the AQMD engineer no later than 45 days before the proposed test date and shall be approved by the District before the test commences. The test protocol shall include the proposed operating conditions of the turbine during the tests, the identity of the testing lab, a statement from the testing lab certifying that it meets the criteria of Rule 304, and a description of all sampling and analytical procedures.

For ~~natural~~ gas ~~fired~~ turbines only the VOC test shall use the following test method: a) Stack gas samples are extracted into Summa canisters, maintaining a final canister pressure between 400 - 500 mm Hg absolute, b) Pressurization of Summa canisters is done with zero gas analyzed/certified to containing less than 0.05 ppmv total hydrocarbons as carbon, and c) Analysis of Summa canisters is per EPA Method TO-12 (with pre-concentration) and the temperature of the Summa canisters when extracting samples for analysis is not to be below 70 degrees F.

The use of this alternative VOC test method is solely for the determination of compliance with the VOC BACT level of 2.0 ppmv calculated as carbon for natural gas fired turbines. Because the BACT level was set using data derived from various source test methods, this alternate method provides a fair comparison and represents the best sampling and analysis technique for this purpose at this time The test results must be reported with two significant digits.

The test shall be conducted when this equipment is operating at loads of 100, 75, and 50 **(50 percent or the minimum compliant load achieved)** percent of maximum load for the NO_x, CO, VOC, ~~PM,~~ and ammonia tests. **The PM test shall be conducted when this equipment is operating at 100% of maximum load. All testing for this equipment shall be conducted in TRIPLICATE.**

The test shall be conducted when this equipment is operating at 100 percent of maximum load for the PM test. (SCAQMD D29-1)

Verification: The project owner shall submit the proposed protocol for the initial source tests 45 days prior to the proposed source test date to the District for approval and to the CPM for review. The project owner shall notify the District and CPM no later than 10 days prior to the proposed initial source test date and time. The project owner shall submit source test results no later than 60 days following the initial source test date to both the District and CPM.

AQ-9 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
SO_x emissions	Approved District Method	District Approved Averaging Time	Fuel Sample
VOC emissions	Approved District Method	1 hour	Outlet of the SCR
PM emissions	Approved District Method	District Approved Averaging Time	Outlet of the SCR

The test(s) shall be conducted at least once every three years.

The test shall be conducted and the results submitted to the District within 60 days after the test date. The AQMD shall be notified of the date and time of the test at least 10 days prior to the test.

The test shall be conducted when the gas turbine is operating at 100 percent of maximum heat input. **Testing for this equipment shall be conducted in TRIPLICATE.**

For ~~natural~~ gas ~~fired~~ turbines only the VOC test shall use the following test method: a) Stack gas samples are extracted into Summa canisters, maintaining a final canister pressure between 400 - 500 mm Hg absolute, b) Pressurization of Summa canisters is done with zero gas analyzed/certified to containing less than 0.05 ppmv total hydrocarbons as carbon, and c) Analysis of Summa canisters is per EPA Method TO-12 (with pre-concentration) and the temperature of the Summa canisters when extracting samples for analysis is not to be below 70 degrees F.

The use of this alternative **VOC test** method is solely for the determination of compliance with the VOC BACT level of 2.0 ppmv calculated as carbon for natural gas fired turbines. Because the BACT level was set using data derived from various source test methods, this alternate method provides a fair comparison and represents the best sampling and analysis technique for this purpose at this time. The test results must be reported with two significant digits.

The test shall be conducted to demonstrate compliance with the Rule 1303 concentration and/or monthly emissions limit. (SCAQMD D29-2)

Verification: The project owner shall submit the proposed protocol for the triennial source tests 45 days prior to the proposed source test date to the District for approval and to the CPM for review. The project owner shall notify the District and CPM no later than 10 days prior to the proposed source test date and time. The project owner shall submit source test results no later than 60 days following the source test date to both the District and CPM.

AQ-10 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
NH_3 emissions	District Method 207.1 and 5.3 or EPA Method 17	1 hour	Outlet of the SCR

The test shall be conducted and the results submitted to the District within 60 days after the test date. The AQMD shall be notified of the date and time of the test at least 10 days prior to the test.

The test**(s)** shall be conducted at least quarterly during the first twelve months of operation and at least annually thereafter. The NOx concentration, as

determined by the certified CEMS, shall be simultaneously recorded during the ammonia slip test. If the CEMS is inoperable or not yet certified, a test shall be conducted to determine the NOx emissions using District Method 100.1 measured over a 60 minute averaging time period.

The test shall be conducted to demonstrate compliance with the Rule 1303 concentration limit. (SCAQMD D29-3)

Verification: The project owner shall submit the proposed protocol for the ammonia slip source tests 30 days prior to the proposed source test date to the District for approval and to the CPM for review. The project owner shall notify the District and CPM no later than ten days prior to the proposed source test date and time. The project owner shall submit source test results no later than 60 days following the source test date to both the District and CPM.

AQ-11 The operator shall provide to the District a source test report (see **AQ-8**, **AQ-9**, and **AQ-10**)in accordance with the following specifications:

Source test results shall be submitted to the District no later than 60 days after the source test was conducted.

Emission data shall be expressed in terms of concentration (ppmv), corrected to 15 percent oxygen (dry basis), mass rate (lb/hr), and lbs/MM cubic feet. In addition, solid PM emissions, if required to be tested, shall also be reported in terms of grains per DSCF ~~and in terms of lbs/MMBtu~~.

All exhaust flow rates shall be expressed in terms of dry standard cubic feet per minute (DSCFM) and dry actual cubic feet per minute (DACFM).

All moisture concentration shall be expressed in terms of percent corrected to 15 percent oxygen.

Source test results shall also include the oxygen levels in the exhaust, the fuel flow rate (CFH), the flue gas temperature, and the generator power output (MW) under which the test was conducted. (SCAQMD K40-1)

Verification: See verifications for Conditions **AQ-8**, **AQ-9**, and **AQ-10.**

AQ-13 The operator shall limit emissions from this equipment as follows:

Contaminant	Emissions Limit
CO	9,728 LBS IN ANY 1 MONTH
PM_{10}	~~7,440~~ **5,580** LBS IN ANY 1 MONTH
VOC	3,769 LBS IN ANY 1 MONTH
SO_x	1,362 LBS IN ANY 1 MONTH

For the purpose of this condition, the limits shall be based on the emissions from each gas turbine.

The operator shall calculate the emissions **limits(s)** by using monthly fuel use data and the following emission factors: PM_{10} ~~3.91~~ **2.93** lbs/mmscf, ~~VOC 1.79 lbs/mmscf,~~ SO_x 0.71 lbs/mmscf.

The operator shall calculate the emission limit(s) by using monthly fuel use data and the following emission factors: VOC 1.79 lb/mmscf for normal operations, VOC 12.29 lb/mmscf for startups.

The operator shall calculate the emissions **limits(s)** for CO, during the commissioning period, using fuel consumption data and the following emission factor: 22.19 lb/mmscf

The operator shall calculate the emission limit(s) for CO, after the commissioning period and prior to the CO CEMS certification, using fuel consumption data and the following emission factor: 4.48 lb/mmscf.

The operator shall calculate the emissions **limits(s)** for CO, after the CO CEMS certification, based on readings from the certified CEMS. In the event the CO CEMS is not operating or the emissions exceed the valid upper range of the analyzer, the emissions shall be calculated in accordance with the approved CEMS plan. (SCAQMD A63-1)

Verification: The project owner shall submit to the CPM and APCO turbine emissions data demonstrating compliance with this condition as part of the Quarterly Operation Report (**AQ-SC8**).

AQ-15 The operator shall install and maintain a CEMS to measure the following parameters:

CO concentration in ppmv

Concentrations shall be corrected to15 percent oxygen on a dry basis.

The CEMS will convert the actual CO concentrations to mass emission rates (lb/hr) and record the hourly emission rates on a continuous basis.

The CEMS shall be installed and operated in accordance with an approved AQMD Rule 218 CEMS plan application. The operator shall not install the CEMS prior to receiving initial approval from AQMD.

The CEMS shall be installed and operated to measure CO concentration over a 15 minute averaging time period.

The CEMS shall be installed and in operation no later than 90 days after initial startup of the turbine. Rule 218 testing shall be completed and

submitted to the AQMD within 90 days of the conclusion of the turbine commissioning period. (SCAQMD D82-1)

Verification: The CEMS shall be installed and in operation **after initial startup of the turbine.** and Rule 218 testing **shall be completed and** submitted to the AQMD at the conclusion of the turbine commissioning period ~~prior to baseload commercial operation~~. The project owner shall provide the CPM documentation of the Districts approval of the CEMS, within 15 days of its receipt. The project owner shall make the site available for inspection of the CEMS by representatives of the District, CARB and the Commission.

AQ-16 The operator shall install and maintain a CEMS to measure the following parameters:

NO_x concentration is expressed in ppmv.

Concentrations shall be corrected to 15 percent oxygen on a dry basis.

The CEMS shall be installed and operating no later than 12 months after initial start-up of the turbine and shall comply with the requirements of Rule 2012. During the interim period between the initial start-up and the provisional certification date of the CEMS, the operator shall comply with the monitoring requirements of Rule 2012(h)(2) and 2012(h)(3). Within two weeks of the turbine startup date, the operator shall provide written notification to the District of the exact date of start-up.

The CEMS shall be installed and in operation within 90 days after initial startup of the turbine. Rule 2012 provisional RATA testing shall be completed and submitted to the AQMD within 90 days of the conclusion of the turbine commissioning period. (SCAQMD D82-2)

Verification: The CEMS shall be **installed and** in operation **after initial startup of the turbine.** ~~and~~ Rule 2012 provisional RATA testing **shall be completed and** submitted to the AQMD at the conclusion of the turbine commissioning period ~~prior to base load commercial operation~~. The project owner shall provide the CPM documentation of the Districts approval of the CEMS, within 15 days of its receipt. The project owner shall make the site available for inspection of the CEMS by representatives of the District, CARB and the Commission.

AQ-17 The 68.26 lbs/mmscf NO_x emission limit(s) shall only apply during **the** turbine commissioning **period**. (SCAQMD A99-1)

Verification: The project owner shall submit, commencing one month from the time of gas turbine first fire, a monthly commissioning status report throughout the duration of the commissioning phase that demonstrates compliance with this condition and the emission limits of Condition **AQ-13.** The monthly commissioning status report shall include criteria pollutant emission estimates for each commissioning activity and total commissioning emission estimates. The monthly commissioning status report shall be

submitted to the CPM until the report includes the completion of the initial commissioning activities. The project owner shall make the site available for inspection of the commissioning records by representatives of the District, CARB and the Commission.

AQ-18 The operator shall operate and maintain this equipment according to the following requirements:

The commissioning period shall not exceed 509 hours of operation for both turbines during the first 180 calendar days from the date of initial start-up.

Startup/shutdown time shall not exceed 4 hours per day per gas turbine, except for a cold startup **and combustor-tuning activities** which shall not exceed 6 hours per day per gas turbine. ~~For purposes of this condition a~~ **A** cold startup shall be defined as a startup of the gas turbine after 72 hours of non-operation. **Combustor-tuning activities shall be defined as all testing, adjusting, tuning, and calibration activities recommended by the turbine manufacturer to ensure safe, reliable, and in-specification operation of the turbine.**

Startup**/shutdown and combustor-tuning activity** emissions shall not exceed ~~125~~ **408** lb/hr NOx and ~~50~~ **95** lb/hr CO averaged for the duration of the startup. **The startup/shutdown and combustor-tuning activity emissions shall not exceed 803 lbs/event NOx and 300 lbs/event CO.**

Monthly startup/shutdown time shall not exceed 31 hours. Shutdown time does not include non-operation time

The operator shall provide the AQMD with written notification of the initial startup date. Written records of commissioning, startups, ~~and~~ shutdowns, **and combustor-tuning activities** shall be maintained and made available upon request from AQMD. (SCAQMD E193-2)

Verification: The project owner shall submit to the CPM the final commissioning status report as in Condition **AQ-17**. The project owner shall provide startup/ ~~and~~ shutdown **and combustor-tuning activity** occurrence, duration, and emissions data demonstrating compliance with this condition as part of the Quarterly Operation Report (**AQ-SC8**). The project owner shall make the site available for inspection of the commissioning, ~~and~~ start-up/shutdown, **and combustor-tuning activity** records by representatives of the District, CARB and the Commission.

AQ-19 The 7.36 lbs/mmscf NO_x emission limit(s) shall only apply during the interim reporting period after the commissioning period **to report RECLAIM emissions**. (SCAQMD A99-3)

Verification: The project owner shall submit to the CPM and APCO turbine emissions data demonstrating compliance with this condition through the use of the required RECLAIM emission factor, as appropriate, as part of the Quarterly Operation Report (**AQ-SC8**).

AQ-20 For the purpose of the following conditions **number(s),** continuously record shall be defined as recording at least once every hour and shall be calculated

based upon the average of the continuous monitoring for that hour. (SCAQMD E179-1)

Condition **AQ-5** (SCAQMD D12-1)

Condition **AQ-6** (SCAQMD D12-2)

Verification: See verifications for Conditions **AQ-5** and **AQ-6**.

AQ-21 For the purpose of the following condition **number(s),** "continuously record" shall be defined as recording at least once every hour and shall be calculated based upon the average of the continuous monitoring for that month. (SCAQMD E179-2)

Condition **AQ-7** (SCAQMD D12-3)

Verification: See verification for Condition **AQ-7**.

AQ-22 The 2.0 ppmv NO_x emission limit**(s)** is averaged over 1 hour at 15 percent oxygen, dry basis. The limit shall not apply to turbine commissioning, **combustor-tuning activities,** startup and shutdown periods. The limit shall not apply to the first fifteen 1-hour average NOx emissions above 2.0 ppmv, dry basis at 15% O2, in any rolling 12-month period for each combustion gas turbine provided that it meets all of the following requirements:

A. This equipment operates under any one of the qualified conditions described below:

a) Rapid combustion turbine load changes due to the following conditions:
- Load changes initiated by the California ISO or a successor entity when the plant is operating under Automatic Generation Control; or
- Activation of a plant automatic safety or equipment protection system which rapidly decreases turbine load

b) The first two 1-hour reporting periods following the initiation/shutdown of a **the** inlet air ~~cooling~~ **chilling** system ~~injection pump~~

ce) Events as the result of technological limitation identified by the operator and approved in writing by the AQMD Executive Officer or his designees

B. The 1-hour average NOx emissions above 2.0 ppmv, dry basis at 15% O2, did not occur as a result of operator neglect, improper operation or maintenance, or qualified breakdown under Rule 2004(i).

C. The qualified operating conditions described in (A) above are recorded in the plant's operating log within 24 hours of the event, and in the CEMS by 5 p m. the next business day following the qualified operating condition. The notations in the log and CEMS must describe the date and time of entry into the log/CEMS and the plant operating conditions responsible for NOx emissions exceeding the 2.0 ppmv 1-hour average limit.

D. The 1-hour average NOx concentration for periods that result from a qualified operating condition does not exceed 25 ppmv, dry basis at 15 percent O2.

All NOx emissions during these events shall be included in all calculations of hourly, daily, and annual mass emission rates as required by this permit. (SCAQMD A195-1)

Verification: The project owner shall submit to the CPM and APCO turbine CEMS emissions data demonstrating compliance with this condition as part of the Quarterly Operation Report (**AQ-SC8**).

AQ-23 The 3.0 ppmv CO emission limit**(s)** is averaged over 1 hour at 15 percent oxygen**, dry basis**. This limit shall not apply to turbine commissioning, **combustor-tuning activities,** startup and shutdown periods. (SCAQMD A195-2)

Verification: The project owner shall submit to the CPM and APCO turbine CEMS emissions data demonstrating compliance with this condition as part of the Quarterly Operation Report (**AQ-SC8**).

AQ-24 The 2.0 ppmv VOC emission limit**(s)** is averaged over 1 hour at 15 percent oxygen, dry basis. This limit shall not apply to turbine commissioning, **combustor-tuning activities,** startup and shutdown periods. (SCAQMD A195-3)

Verification: See verifications for Conditions **AQ-8** and **AQ-9**.

AQ-25 The 5 ppmv NH_3 emissions limit**(s)** is averaged over 1 hour at 15 percent oxygen, dry basis. (SCAQMD A195-7)

Verification: See verification for Conditions **AQ-8**, **AQ-10**, and **AQ-26**.

AQ-26 **The operator shall operate and maintain this equipment according to the following requirements:** ~~The operator shall install, operate, and maintain an approved Continuous Emission Monitoring Device, approved by the Executive Officer, to monitor and record ammonia concentrations, and alert the operator (via audible or visible alarm) whenever ammonia concentrations are near, at, or in excess of the permitted ammonia limit of 5 ppmv, corrected to 15% oxygen. It shall continuously monitor or calculate, and record the following parameters:~~

- ~~Ammonia concentration, uncorrected in ppmv~~
- ~~Oxygen concentration in percent~~
- ~~Ammonia concentration in ppmv, corrected to 15% oxygen~~
- ~~Date, time, extent (in time) of all excursions above 5 ppmv, corrected to 15% oxygen~~

~~The Continuous Emission Monitoring Device described above shall be operated and maintained according to a Quality Assurance Plan (QAP) approved by the AQMD Executive Officer. The QAP must address contingencies for monitored ammonia concentrations near, at, or above the permitted compliance limit, and remedial actions to reduce ammonia levels once a violation has occurred.~~

The operator shall calculate and continuously record the NH3 slip concentration using the following: NH3 (ppmvd) = [a-b*(c*1.2)/1E6]*1E6/b, where a=NH3 injection rate (lb/hr)/17(lb/lb-mol), b=dry exhaust flow rate (scf/hr)/(385.5 scf/lb-mol), c=change in measured NOx across the SCR, ppmvd at 15 percent O2.

The operator shall install a NOx analyzer to measure the SCR inlet NOx ppm accurate to within +/- 5 percent calibrated at least once every 12 months. The operator shall use the method described above or another alternative method approved by the Executive Officer.

The **ammonia slip calculation procedures described above shall** ~~Continuous Emission Monitoring Device may~~ not be used for compliance determination or emission information determination without corroborative data using an approved reference method for the determination of ammonia.

The **ammonia slip calculation procedure shall be in-effect** ~~Continuous Emission Monitoring Device shall be installed and operating~~ no later than 90 days after initial startup of the turbine. (SCAQMD **E193-4** ~~D232-1~~)

Verification: ~~The project owner shall provide the CPM documentation of the District's approval of the continuous emission monitoring device, within 15 days of its receipt.~~ The project owner shall make the site available for inspection of the monitoring ~~device and monitoring device~~ records by representatives of the District, CARB and the Commission. The project owner shall submit to the CPM emissions data generated by the ~~continuous emission monitoring device~~ **calculation procedure** as part of the Quarterly Operation Report (**AQ-SC8**).

AQ-27 This equipment shall not be operated unless the operator demonstrates to the Executive Officer that the facility holds sufficient RTCs to offset the prorated annual emissions increase for the first compliance year of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the first compliance year of operation, the facility holds sufficient RTCs in an amount equal to the annual emissions increase.

To comply with this condition, the operator shall prior to the first compliance year hold a minimum NOx RTCs of ~~159,163~~ **165,612** lbs for the initial gas turbine plus ~~135,754~~ **152,218** lbs for the second gas turbine. This condition

shall apply during the first twelve months of operation, commencing with the initial operation of each gas turbine.

To comply with this condition, the operator shall, prior to the beginning of all years subsequent to the first compliance year, hold a minimum NOx RTCs of ~~159,069~~ **158,943** lbs for each gas turbine. In accordance with Rule 2005(f), unused RTCs may be sold only during the reconciliation period for the fourth quarter of the applicable compliance year inclusive of the first compliance year. (SCAQMD I296-1 and I296-2)

Verification: The project owner shall submit to the CPM copies of all RECLAIM reports filed with the District demonstrating compliance with this condition as part of the Quarterly Operation Report (**AQ-SC8**)

AQ-32 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
NO_x emissions	District Method 100.1	1 hour	Outlet of the SCR
CO emissions	District Method 100.1	1 hour	Outlet of the SCR
~~SO_x emissions~~	~~Approved District Method~~	~~District Approved Averaging Time~~	~~Fuel Sample~~
VOC emissions	Approved District Method	1 hour	Outlet of the SCR
~~PM emissions~~	~~Approved District Method~~	~~District Approved Averaging Time~~	~~Outlet of the SCR~~
NH_3 emissions	District Method 207.1 and 5.3 or EPA Method 17	1 hour	Outlet of the SCR

The test shall be conducted after District approval of the source test protocol, but no later than 180 days after initial start-up. The District shall be notified of the date and time of the test at least 10 days prior to the test.

The test shall be conducted to determine the oxygen levels in the exhaust. In addition, the tests shall measure the fuel flow rate (CFH) and the flue gas flow rate

The test shall be conducted in accordance with a District approved source test protocol. The protocol shall be submitted to the AQMD engineer no later than 45 days before the proposed test date and shall be approved by the District before the test commences. The test protocol shall include the proposed operating conditions of the auxiliary boiler during the tests, the identity of the testing lab, a statement from the testing lab certifying that it meets the criteria of Rule 304, and a description of all sampling and analytical procedures.

The test shall be conducted when this equipment is operating at ~~loads of~~ 100, ~~75, and 50~~ percent of maximum load for the NOx, CO, VOC, ~~PM,~~ and ammonia tests. (SCAQMD D29-4).

Verification: The project owner shall submit the proposed protocol for the initial source tests 45 days prior to the proposed source test date to the District for approval and to

the CPM for review. The project owner shall submit source test results no later than 60 days following the source test date to both the District and CPM. The project owner shall notify the District and CPM no later than 10 days prior to the proposed initial source test date and time

AQ-35 The operator shall limit the fuel usage to no more than **29.24 mmscf per month** ~~92.844 mmscf per year~~.

To comply with this condition, the operator shall install and maintain a non-resettable totalizing fuel meter to accurately indicate the fuel usage of the auxiliary boiler. (SCAQMD C1-2)

Verification: The project owner shall submit to the CPM and APCO the auxiliary boiler operations data demonstrating compliance with this condition as part of the Quarterly Operation Report (**AQ-SC8**). The project owner shall make the auxiliary boiler available for inspection by representatives of the District, CARB and the Commission upon request.

AQ-36 The operator shall limit emissions from this equipment as follows:

Contaminant	Emissions Limit
CO	1,113 LBS IN ANY 1 MONTH
PM_{10}	218 LBS IN ANY 1 MONTH
VOC	~~90~~ **127** LBS IN ANY 1 MONTH
SO_x	21 LBS IN ANY 1 MONTH

The operator shall calculate the emissions **limit(s)** by using monthly fuel use data and the following emission factors: CO 36 92 lb/mmscf, PM_{10} 7.26 lbs/mmscf, VOC 4.22 lbs/mmscf, SO_x 0.71 lbs/mmscf.

The operator shall calculate the emissions **limit(s)** for CO, after the CO CEMS certification, based on readings from the certified CEMS. In the event the CO CEMS is not operating or the emissions exceed the valid upper range of the analyzer, the emissions shall be calculated in accordance with the approved CEMS plan. (SCAQMD A63-2)

Verification: The project owner shall submit to the CPM and APCO boiler emissions data demonstrating compliance with this condition as part of the Quarterly Operation Report (**AQ-SC8**).

AQ-38 The operator shall install and maintain a CEMS to measure the following parameters:

- NO_x concentration is expressed in ppmv.

Concentrations shall be corrected to 3 percent oxygen on a dry basis.

The CEMS shall be installed and operating no later than 12 months after initial start-up of the boiler and shall comply with the requirements of Rule

2012. During the interim period between the initial start-up and the provisional certification date of the CEMS, the operator shall comply with the monitoring requirements of Rule 2012(h)(2) and 2012(h)(3). Within two weeks of the boiler startup date, the operator shall provide written notification to the District of the exact date of start-up.

The CEMS shall be in operation and Rule 2012 provisional RATA testing submitted to the AQMD **within 90 days of** ~~at~~ the conclusion of the **boiler** ~~turbine~~ commissioning period ~~prior to base load commercial operation~~.

The CEMS shall be installed and operating no later than 90 days after initial startup of the boiler. (SCAQMD D82-4)

Verification: The project owner shall provide the CPM documentation of the Districts approval of the CEMS, within 15 days of its receipt. The project owner shall make the site available for inspection of the CEMS by representatives of the District, CARB and the Commission.

AQ-40 For the purpose of the following conditions **number(s),** continuously record shall be defined as recording at least once every hour and shall be calculated based upon the average of the continuous monitoring for that hour. (SCAQMD E179-1)
Condition **AQ-29** (SCAQMD D12-1)
Condition **AQ-30** (SCAQMD D12-2)

Verification: See verifications for Conditions **AQ-29** and **AQ-30.**

AQ-41 For the purpose of the following condition **number(s),** continuously record shall be defined as recording at least once every hour and shall be calculated based upon the average of the continuous monitoring for that month. (SCAQMD E179-2)

Condition **AQ-31** (SCAQMD D12-3)

Verification: See verification for Condition **AQ-31.**

AQ-42 The 7 ppmv NO_x emission limit(s) ~~are~~ **is** averaged over one hour at 3 percent oxygen, dry basis. (SCAQMD A195-4)

Verification: The project owner shall submit to the CPM and APCO auxiliary boiler CEMS emissions data demonstrating compliance with this condition as part of the Quarterly Operation Report (**AQ-SC8**).

AQ-43 The 50 ppmv CO emission limit(s) ~~are~~ **is** averaged over 1 hour at 3 percent oxygen, dry basis. (SCAQMD A195-5)

Verification: The project owner shall submit to the CPM and APCO auxiliary boiler CEMS emissions data demonstrating compliance with this condition as part of the Quarterly Operation Report (**AQ-SC8**).

AQ-44 The 10 ppmv VOC emission limit(s) ~~are~~ **is** averaged over 1 hour at 3 percent oxygen, dry basis. (SCAQMD A195-6)

Verification: See verification for Condition **AQ-32**.

AQ-45 The 5 ppmv NH3 emission limit(s) ~~are~~ **is** averaged over 1 hour at 3 percent oxygen, dry basis. (SCAQMD A195-8)

Verification: See verification for Conditions **AQ-32**, **AQ-33**, and **AQ-46**.

AQ-46 **The operator shall operate and maintain this equipment according to the following requirements:** ~~The operator shall install, operate, and maintain an approved Continuous Emission Monitoring Device, approved by the Executive Officer, to monitor and record ammonia concentrations, and alert the operator (via audible or visible alarm) whenever ammonia concentrations are near, at, or in excess of the permitted ammonia limit of 5 ppmv, corrected to 3% oxygen. It shall continuously monitor or calculate, and record the following parameters:~~

- ~~Ammonia concentration, uncorrected in ppmv~~
- ~~Oxygen concentration in percent~~
- ~~Ammonia concentration in ppmv, corrected to 3 percent oxygen~~
- ~~Date, time, extent (in time) of all excursions above 5 ppmv, corrected to 3 percent oxygen~~

~~The Continuous Emission Monitoring Device described above shall be operated and maintained according to a Quality Assurance Plan (QAP) approved by the AQMD Executive Officer. The QAP must address contingencies for monitored ammonia concentrations near, at, or above the permitted compliance limit, and remedial actions to reduce ammonia levels once a violation has occurred.~~

The operator shall calculate and continuously record the NH3 slip concentration using the following: NH3 (ppmvd) = [a-b*(c*1.2)/1E6]*1E6/b, where a=NH3 injection rate (lb/hr)/17(lb/lb-mol), b=dry exhaust flow rate (scf/hr)/(385.5 scf/lb-mol), c=change in measured NOx across the SCR, ppmvd at 3 percent O2.

The operator shall install a NOx analyzer to measure the SCR inlet NOx ppm accurate to within +/- 5 percent calibrated at least once every 12 months. The operator shall use the method described above or another alternative method approved by the Executive Officer.

The **ammonia slip calculation procedures described above shall** ~~Continuous Emission Monitoring Device may~~ not be used for compliance determination or emission information determination without corroborative data using an approved reference method for the determination of ammonia.

The **ammonia slip calculation procedure shall be in-effect** ~~Continuous Emission Monitoring Device shall be installed and operating~~ no later than 90 days after initial startup of the boiler. (SCAQMD **E193-5** ~~D232-2~~)

Verification: ~~The project owner shall provide the CPM documentation of the District's approval of the continuous emission monitoring device, within 15 days of its receipt.~~ The project owner shall make the site available for inspection of the monitoring ~~device and monitoring device~~ records by representatives of the District, CARB and the Commission. The project owner shall submit to the CPM emissions data generated by the ~~continuous emission monitoring device~~ **calculation procedure** as part of the Quarterly Operation Report (**AQ-SC8**).

AQ-47 This equipment shall not be operated unless the operator demonstrates to the Executive Officer that the facility holds sufficient RTCs to offset the prorated annual emissions increase for the first compliance year of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the first compliance year of operation, the facility holds sufficient RTCs in an amount equal to the annual emissions increase.

To comply with this condition, the operator shall prior to the first compliance year hold a minimum NOx RTCs of ~~786~~ **790** lbs. This condition shall apply during the first twelve months of operation.

To comply with this condition, the operator shall, prior to the beginning of all years subsequent to the first compliance year, hold a minimum NOx RTCs of ~~786~~ **790** lbs. In accordance with Rule 2005(f), unused RTCs may be sold only during the reconciliation period for the fourth quarter of the applicable compliance year inclusive of the first compliance year. (SCAQMD I296-3)

Verification: The project owner shall submit to the CPM copies of all RECLAIM reports filed with the District demonstrating compliance with this condition as part of the Quarterly Operation Report (**AQ-SC8**).

Two Emergency Generator Engines and One Fire Pump Engine

Conditions of Certification AQ-48 through AQ-55 apply separately to each emergency generator and fire pump engine, unless otherwise specified.

AQ-48 The operator shall limit the operating time of each engine to no more than 50 hours per year. (SCAQMD C1-1)

Verification: The project owner shall submit to the CPM and APCO the emergency generator and fire pump IC engines operations data demonstrating compliance with this condition as part of the Quarterly Operation Report (**AQ-SC8**).

AQ-50 The operator shall install and maintain a non-resettable **totalizing** ~~elapsed~~ fuel meter to accurately indicate the ~~engine~~ fuel ~~consumption~~ **usage of each engine**. (SCAQMD D12-5)

Verification: The project owner shall make the emergency generator and fire pump engines available for inspection by representatives of the District, CARB and the Commission upon request.

AQ-53 The operator shall keep records, in a manner approved by the District, for the following parameters or items:

- Date of operation, the elapsed time, in hours, and the reason for operation.
- ~~Records shall be kept and maintained on file for a minimum of two years and made available to district personnel upon request.~~ (SCAQMD K67-2)

Verification: The project owner shall make the emergency generator and fire pump engine records available for inspection by representatives of the District, CARB and the Commission upon request.

Ammonia Storage Tanks

AQ-54 The operator shall vent this equipment, during filling, only to the vessel from which it is being filled. (SCAQMD **E144**~~E141~~-1)

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

AQ-55 The operator shall install and maintain a pressure relief valve **with a minimum pressure** set at 25 psig. (SCAQMD C157-1)

Verification: The project owner shall make the ammonia tank pressure relief valve and its specifications available for inspection by representatives of the District, CARB and the Commission upon request.

Organic Materials

AQ-58 The operator shall restrict the operation of the gas turbines and auxiliary boiler according to the following requirements:

- **The calendar daily cumulative operating hours for both gas turbines (D1 and D2) and the auxiliary boiler (D3) shall not exceed 60 hours per day. The operating hours shall be recorded and maintained using an automated data acquisition system. The operating hours shall be determined from the RECLAIM certified NOx CEMS accurate to the nearest 15-min operating period.**

- **The operator shall maintain daily records summarizing daily operating hours of each of the following equipment – gas turbine D1, gas turbine D2, and auxiliary boiler D3 for at least 5 years and made available to AQMD upon request. (SCAQMD E193-6)**

Verification: The project owner shall submit to the CPM and APCO turbine and boiler operating data demonstrating compliance with this condition as part of the Quarterly Operation Report (AQ-SC8). The project owner shall make the records available for inspection by representatives of the District, CARB and the Commission upon request.

ATTACHMENT AIR QUALITY 1 – AQ-SC16, EQUIPMENT DESCRIPTION

[Following is a copy of Equipment Description from the Permit to Construct issued by SCAQMD, distribution date July 1, 2006.]

EQUIPMENT DESCRIPTION

Section H of the facility permit: Permit to Construct and temporary Permit to Operate

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* and Requirements	Conditions
PROCESS 1: COMBUSTION AND POWER GENERATION					
SYSTEM 1: GAS TURBINE COMBUSTION					
GAS TURBINE, **CTG** #1, NATURAL GAS, GENERAL ELECTRIC, MODEL **S**107H, ~~COMBINED CYCLE,~~ **(MAX RATING AT 36 DEGREES F),** WITH ~~DRY~~ LOW NOx BURNERS, 2,597 MMBtu/HR ~~(at 36 °F)~~ WITH: A/N: ~~439481~~**456168** **Permit to Construct Issued; 06/02/06** GENERATOR, **ELECTRIC, SERVING CTG/HRSG GROUP 1,** 405 MW GENERATOR, ~~#1,~~ HEAT RECOVERY STEAM GENERATOR (HRSG) **#1**	D1 ~~B11~~ B13	C17	NOx: MAJOR SOURCE**	**NOx**: 2.0 PPMV **NATURAL GAS** (4) [RULE 2005 BACT, RULE 1703 **PSD Analysis**]; NOx: ~~(COMMISSIONING)~~ 68.26 LBS/MMSCF (1) [RULE 2012]; NOx: 7.36 LBS/MMSCF **NATURAL GAS** (1) [RULE 2012], NOx ~~180~~ **123** PPMV NATURAL GAS (8) [40CFR 60 SUBPART GG]; **CO**: 3.0 PPMV **NATURAL GAS**(4) [RULE 1303 BACT]; CO 2,000 PPMV **NATURAL GAS**(5) [RULE 407]; **VOC**: 2.0 PPMV **NATURAL GAS** (4) [RULE 1303-BACT]; VOC: 1.4 PPMV **NATURAL GAS** (7) [RULE 1303-OFFSET] **PM10**: ~~10.0~~**7.5** LB/HR **NATURAL GAS** (4**7**) [RULE 1303-~~BACT~~**Offset**]; PM10 0.1 GR**AINS**/SCF **NATURAL GAS** (5) [RULE 409]; PM10: 11 LB/HR (5**B**) [RULE 475]; PM10: 0.01 GR**AINS**/SCF **NATURAL GAS** (5A)	A63.1, A99.1, A99.3, A195.1, A195.2, A195.3, A327.1, B61.1, D29.1, D29.2, D82.1, D82.2, E193.1, E193.2, E193.3, **E193.6,** I296.1, K40.1, K67.1

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* and Requirements	Conditions
				[RULE 475], SOx: 150 PPMV **NATURAL GAS** (8) [40CFR 60 SUBPART GG]; SO2: (9) [40CFR 72 ACID RAIN]; H2S: ~~LEVEL IN NATURAL GAS LESS THAN~~ 0.25 GRAINS PER 100 SCF **NATURAL GAS (4)** [RULE 1303-OFFSET]	
OXIDIZER, CATALYTIC, ~~CO OXIDATION CATALYST #1. ENGELHARD, HEIGHT: 64'8", WIDTH: 33', CATALYST VOLUME: 290 FT^3,~~ SERVING ~~TURBINE~~**CTG**/HRSG #1, **ENGELHARD** WITH: A/N 439488 **Permit to Construct Issued: 08/05/05**	C17	C4, D1,			
SELECTIVE CATALYTIC REDUCTION, ~~#1, HALDER-TOPSOE, , HEIGHT: 64'8", WIDTH: 33', CATALYST VOLUME: 2,048 FT^3,~~ SERVING ~~TURBINE~~**CTG**/HRSG #1, **HALDOR TOPSOE** WITH: A/N:439488 **Permit to Construct Issued: 08/05/05** AMMONIA INJECTION, ~~INJECTION GRID~~	C4 ~~B18~~	C17, S19		**NH3**. 5 PPMV **NATURAL GAS** (4) [RULE 1303(a)(1)-BACT]	A195.7, D12.1, D12.2, D12.3, D29.3, ~~D232.1~~, E179.1, E179.2, **E193.1,** E193.3, **E193.4**
STACK, ~~#1 SERVING TURBINE AND~~ **FOR CTG**/HRSG #1, HEIGHT: 195 FT; DIAMETER 22 FT; ~~WITH~~: A/N 439481 **Permit to Construct Issued: 06/02/06**	S19	C4			
GAS TURBINE, **CTG** #2, NATURAL GAS, GENERAL ELECTRIC, MODEL S107H, **(MAX RATING AT 36**	D2	C18**C24**	NOx: MAJOR SOURCE**	**NOx**: 2.0 PPMV **NATURAL GAS (4)** [RULE 2005 BACT, RULE 1703-**PSD Analysis**]; NOx:	A63.1, A99.1, A99.3, A195.1,

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* and Requirements	Conditions
DEGREES F)~~COMBINED CYCLE~~, WITH ~~DRY~~ LOW NOx BURNERS, 2.597 MMBtu/HR ~~(at 36 °F)~~ WITH:				~~(COMMISSIONING)~~ 68.26 LBS/MMSCF (1) [RULE 2012]; NOx: 7.36 LBS/MMSCF **NATURAL GAS** (1) [RULE 2012];NOx: ~~180~~ **123** PPMV NATURAL GAS (8) [40CFR 60 SUBPART GG];	A195.2, A195.3, A327.1, B61.1, D29.1, D29.2, D82.1, D82.2, E193.1, E193.2, E193.3, **E193.6** I296.2. K40.1, K67.1
A/N: 439485**456169** **Permit to Construct Issued: 06/02/06**	~~B20~~ ~~B22~~				
GENERATOR, **GENERATOR #2, SERVING CTG/HRSG GROUP 2,** 405 MW GENERATOR ~~#2~~ HEAT RECOVERY STEAM GENERATOR (HRSG) **#2**				CO: 3.0 PPMV **NATURAL GAS** (4) [RULE 1303 BACT]; CO: 2,000 PPMV **NATURAL GAS** (5) [RULE 407]; VOC: 2.0 PPMV **NATURAL GAS** (4) [RULE 1303-BACT], VOC: 1.4 PPMV **NATURAL GAS** (7) [RULE 1303-OFFSET] **PM10**: ~~10.0~~ **7.5** LB/HR **NATURAL GAS** (4**7**) [RULE 1303-~~BACT~~**Offset**]; PM10: 0.1 GR**AINS**/SCF **NATURAL GAS** (5) [RULE 409], PM10: 11 LB/HR **NATURAL GAS** (5**B**) [RULE 475]; PM10: 0.01 GR**AINS**/SCF **NATURAL GAS** (5A) [RULE 475]; **SOx**: 150 PPMV **NATURAL GAS** (8) [40CFR 60 SUBPART GG]; SO2: (9) [40CFR 72 ACID RAIN]; **H2S: ~~LEVEL~~** IN ~~NATURAL GAS LESS THAN~~ 0.25 GRAINS PER 100 SCF **NATURAL GAS** (4) [RULE 1303-OFFSET]	
OXIDIZER, ~~CO OXIDATION CATALYST #2, ENGELHARD, HEIGHT: 64'8", WIDTH: 33', CATALYST VOLUME: 290 FT^3,~~ SERVING ~~TURBINE~~**CTG**/HRSG #2, **ENGELHARD** ~~WITH:~~	~~C18~~ **C24**	D2, C5			

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* and Requirements	Conditions
A/N: 439489 **Permit to Construct Issued: 08/05/05** SELECTIVE CATALYTIC REDUCTION, ~~#2, HALDER-TOPSOE, HEIGHT: 64'8", WIDTH: 33', CATALYST VOLUME: 2,048 FT^3~~, SERVING ~~TURBINE~~CTG/HRSG #2, **HALDOR TOPSOE** WITH :	C5	~~C18~~**C24**		**NH3** 5 PPMV **NATURAL GAS** (4) [RULE 1303-BACT]	A195.7, D12.~~2~~-1, D12.2, D12.3, D29.3, ~~D232.1,~~ E179.1, E179.2 **E193.1,** E193.3, **E193.4**
A/N: 439489 **Permit to Construct Issued; 08/05/05** AMMONIA INJECTION; ~~INJECTION GRID~~	~~B25~~				
STACK, ~~#2, SERVING TURBINE AND~~ **FOR CTG/**HRSG #2, HEIGHT: 195 FT, DIAMETER: 22 FT A/N: ~~439485~~**456169** **Permit to Construct Issued: 06/02/06**	S26	C5			
SYSTEM 2: AUXILIARY EQUIPMENT					
BOILER, AUXILIARY **BOILER, NATURAL GAS,** NEBRASKA ~~BOILER~~, MODEL NS-F-76, ~~NATURAL GAS FIRED,~~ **WITH LOW NOX BURNER,** ~~157~~ **152.12** MMBtu/HR, WITH: A/N: ~~439492~~**456170** **Permit to Construct Issued; 06/02/06** BURNER, NATURAL GAS, **TODD VARIFLAME, MODEL VH690VGXXXX, WITH LOW NOX BURNER, 152.12 MMBTU/HR**~~TBD~~	D3	C6	NOx MAJOR SOURCE**	**NOx**: 7.0 PPMV **NATURAL GAS** (4) [RULE 2005 BACT, RULE 1703-**PSD Analysis**]; NOx: 8.36 LBS/MMSCF **NATURAL GAS** (1) [RULE 2012]; **CO**: 50 PPMV **NATURAL GAS** (4) [RULE 1303 BACT]; CO: 400 PPMV **NATURAL GAS** (5**A**) [RULE 1146]; CO: 2,000 PPMV **NATURAL GAS** (5) [RULE 407]; **VOC**: 10 PPMV **NATURAL GAS** (4) [RULE 1303 BACT] **PM10**: 7.26 LB/HR **MMSCF NATURAL GAS** (4) [RULE 1303-BACT], PM10: 0.1 GRAINS/SCF	A63.2, A99.2, A195.4, A195.5, A195.6, B61.1, C1.2, D29.4, D82.3, D82.4, E193.1, E193.3, I296.3, K40.2

Equipment	ID No	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* and Requirements	Conditions
				NATURAL GAS (5) [RULE 409], **H2S: 0.25 GRAINS PER 100 SCF NATURAL GAS (4) [RULE 1303-BACT]**	
SELECTIVE CATALYTIC REDUCTION, ~~#3, PEERLESS, HEIGHT: 7'4", LENGTH: 4'3", WIDTH: 4', VOL: 115 FT^3;~~ SERVING **FOR** AUXILIARY BOILER, **PEERLESS** WITH A/N:439493 **Permit to Construct Issued: 08/05/05** AMMONIA INJECTION; ~~INJECTION GRID~~	C6 ~~B25~~	D3 **S31**		**NH3** 5 PPMV **NATURAL GAS** (4) [RULE 1303-BACT]	A195.8, D12.1, D12.2, D12.3, D29.3, ~~D232.2,~~ E179.1, E179.2, **E193.1,** E193.3, **E193.5**
STACK, **FOR AUXILIARY BOILER,** HEIGHT: 100 FT, DIA: 4 FT; ~~SERVING AUXILIARY BOILER, WITH~~ A/N:439492456170 **Permit to Construct Issued: 06/02/06**	S31	C6			
~~IC~~ **INTERNAL COMBUSTION** ENGINE, EMERGENCY **POWER, LEAN BURN, EMERGENCY GENERATOR** #1, DIESEL **FUEL,** CATERPILLAR, MODEL G3516B,DITA, 2,848 HP, WITH PERMIT **CATALYTIC/PARTICULATE** FILTER, WITH A/N: 439494 **Permit to Construct Issued: 08/05/05** GENERATOR: 2,000 KW	D9		NOx: PROCESS UNIT**	**NOx**: 6.2 G**RAM**/BHP-HR **DIESEL** (4) [RULE 2005, RULE 1703]; NOx: 270 LB**S**/1000 GAL **DIESEL** (1) [RULE 2012], **CO**: 0.045 G**RAM**/BHP-HR **DIESEL** (4) [RULE 1303-**BACT**]; **VOC**: 0.03 G**RAM**/BHP-HR **DIESEL** (4) [RULE 1303-**BACT**] **PM10** 0.015 G**RAM**/BHP-HR **DIESEL** (4) [RULE 1303-**BACT**]	C1.1, D12.4, D12.5, K67.2, E193.1, E193.3, I296.4
~~IC~~ **INTERNAL COMBUSTION** ENGINE, EMERGENCY **POWER, LEAN BURN, EMERGENCY GENERATOR** #2, DIESEL **FUEL,** CATERPILLAR, MODEL G3516B,DITA, 2,848 HP, WITH	D10		NOx: PROCESS UNIT**	**NOx**: 6.2 G**RAM**/BHP-HR **DIESEL** (4) [RULE 2005, RULE 1703], NOx: 270 LB**S**/1000 GAL **DIESEL** (1) [RULE 2012] **CO**: 0.045 G**RAM**/BHP-	C1.1, D12.4, D12.5, K67.2, E193.1, E193.3, I296.4

Equipment	ID No	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* and Requirements	Conditions
PERMIT **CATALYTIC/PARTICULATE** FILTER, WITH: A/N: 439495 **Permit to Construct Issued: 08/05/05** GENERATOR: 2,000 KW				HR **DIESEL** (4) [RULE 1303-**BACT**] **VOC**: 0.03 G**RAM**/BHP-HR **DIESEL** (4) [RULE 1303-**BACT**] **PM10**: 0.015 G**RAM**/BHP-HR **DIESEL** (4) [RULE 1303-**BACT**]	
INTERNAL COMBUSTION ENGINE, EMERGENCY FIRE, LEAN BURN, EMERGENCY FIRE PUMP **ENGINE**, DIESEL **FUEL**, ~~IC ENGINE,~~ CLARKE, MODEL JW6H-UF40, 300 HP, WITH: A/N: 439496 **Permit to Construct Issued: 08/05/05**	D32		NOx: PROCESS UNIT**	**NOx**: 5.2 G**RAM**/BHP-HR **DIESEL** (4) [RULE 2005, RULE 1703], NOx: 240 LBS/1000 GAL **DIESEL** (1) [RULE 2012]; **CO**: 0.3 G**RAM**/BHP-HR **DIESEL** (4) [RULE 1303-**BACT**] **VOC**: 0.2 G**RAM**/BHP-HR **DIESEL** (4) [RULE 1303-**BACT**] **PM10**: 0.1 G**RAM**/BHP-HR **DIESEL** (4) [RULE 1303-**BACT**]	C1.1, D12.4, D12.5, K67.2, E193.1, E193.3, I296.5
PROCESS 2: INORGANIC CHEMICAL STORAGE					
SYSTEM 1: AMMONIA STORAGE TANKS					
STORAGE TANK, **FIXED ROOF**, #1, ~~WITH A VAPOR RETURN LINE,~~ 28% WT AQUEOUS AMMONIA ~~SOLUTION~~, 16,000 GAL.; **DIAMETER: 10 FT; LENGTH: 26 FT** ~~WITH.~~ A/N: 439497 **Permit to Construct Issued: 08/05/05**	D7				E144.1, C157.1, E193.1, E193.3;
STORAGE TANK, **FIXED ROOF**, #2, ~~WITH A VAPOR RETURN LINE,~~ 28% ~~WT~~ AQUEOUS AMMONIA ~~SOLUTION~~, 16,000 GAL.; **DIAMETER: 10 FT; LENGTH: 26 FT** ~~WITH.~~ A/N: 439498 **Permit to Construct Issued: 08/05/05**	D8				E144.1, C157.1, E193.1, E193.3;

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* and Requirements	Conditions
PROCESS 3: RULE 219 EXEMPT EQUIPMENT ~~SUBJECT TO SOURCE SPECIFIC RULE~~					
RULE 219 EXEMPT EQUIPMENT, COATING **OPERATION** ~~EQUIPMENT, ARCHITECTURE COATINGS~~	E**29**			VOC (9) [RULE 1113, ~~5-4-1999~~; RULE 1171, ~~6-13-1997~~]	K67.3
RULE 219 EXEMPT **EQUIPMENT**, CLEANING EQUIPMENT ~~USING SOLVENTS~~	E**28**			VOC (9) [RULE 1171, ~~6-13-1997~~]	~~H23.1~~

* (1)(1A)(1B) Denotes RECLAIM Emission Factor
(2)(2A)(2B) Denotes RECLAIM Emission Rate
(3) Denotes RECLAIM Concentration Limit
(4) Denotes BACT Emission Limit
(5)(5A)(5B) Denotes Command and Control Emission Limit
(6) Denotes Air Toxic Control Rule Emission Limit
(7) Denotes NSR Applicability Limit
(8)(8A)(8B) Denotes 40 CFR limit (e.g., NSPS, NESHAP, etc.)
(9) See SCAQMD Facility Permit App B for Emission Limits
(10) See SCAQMD Facility Permit Section J for NESHAP/MACT requirements
** Refer to SCAQMD Facility Permit Section F and G to determine the monitoring, recordkeeping, and reporting requirements for this device.

REFERENCES

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_____. 2005b. Commission Order Approving a Petition to Change to GE 107H Combined-Cycle Systems and add secondary laydown/parking areas (Docket No. 01-AFC-17C). June 22, 2005.

IEEC (Inland Empire Energy Center, LLC). 2006a. IEEC Petition to Amend Conditions of Certification, License Amendment #5. October 5, 2006.

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_____. 2005b RECLAIM/Title V Facility Permit, Inland Empire Energy Center, LLC. August 5, 2005.

_____. 2006a. Facility Permit to Operate for Compliance Year 2006, Inland Empire Energy Center, LLC. July 1, 2006.