CALIFORNIA ENERGY COMMISSION
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SACRAMENTO, CA 95814-5512

STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

DOCKET
01-AFC-17C
DATE APR 1 1 2007
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In the Matter of: INLAND EMPIRE ENERGY CENTER	)	**Docket No. 01-AFC-17C**
INLAND EMPIRE ENERGY CENTER, LLC	)	**Order No.** 07-0411-3 **ORDER APPROVING** a Petition to Modify Various Air Quality Conditions of Certification

Inland Empire Energy Center, LLC (IEEC), the owner/operators of the Inland Empire Energy Center Power Project (Project), has requested to modify various Air Quality Conditions of Certification. 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 dated July 1, 2006. Specifically, the air quality conditions of certification would be amended 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 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.

STAFF RECOMMENDATION

The Energy Commission staff reviewed the petition and finds that with the change proposed in staff's analysis (to include the requirement to conduct source tests for VOC emissions from the auxiliary boiler), it complies with the requirements of Title 20, Section 1769(a) of the California Code of Regulations and recommends approval of IEEC'S petition to modify the Inland Empire Energy Center Project and amend related Conditions of Certification.

ENERGY COMMISSION FINDINGS

Based on staff's analysis, the Energy Commission concludes that the proposed changes will not result in any significant impact to public health and safety, or the environment. The Energy Commission finds that:

- The petition meets all the filing criteria of Title 20, section 1769(a) concerning post-certification project modifications;
- With the change proposed in staff's analysis (to include the requirement to conduct source tests for VOC emissions from the auxiliary boiler), the modification would not change the findings in the Energy Commission's Final Decision pursuant to Title 20, section 1755;
- With the change proposed in staff's analysis (to include the requirement to conduct source tests for VOC emissions from the auxiliary boiler), the project would remain in compliance with all applicable laws, ordinances, regulations and standards, subject to the provisions of Public Resources Code section 25525;
- The change would be beneficial to the project owner by allowing one consistent set of air quality conditions of certification;
- There has been a substantial change in circumstances since the Energy Commission certification, justifying the change. When the Energy Commission approved the COCs for the H System Amendment in June 2005, the PDOC was still in the midst of a public review that ended July 1, 2005. The approval order noted that the District might later change the conditions. Many conditions of the PDOC were revised in the initial Facility Permit issued August 5, 2005 and were further revised to reflect changes requested by the project owner. The most recent modification to the IEEC Facility Permit was issued by District on July 1, 2006. The revised conditions trigger the need for the present changes to the COCs.

CONCLUSION AND ORDER

The California Energy Commission hereby adopts Staff's recommendations and approves the following changes to the Inland Empire Energy Center Project's Decision. New language is shown **double-underlined and bolded**, and deleted language is shown in ~~strikeout~~.

CONDITION(S) OF CERTIFICATION

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 Permit to Construct**, 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 turbine~~s~~ **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 condition~~s~~ **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~~

c~~e~~) 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 emission~~s~~ **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 emission~~s~~ **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 condition~~s~~ **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-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 BURNER~~S~~, 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) [RULE 475];	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
				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~~**456168** **Permit to Construct Issued: 06/02/06**	S19	C4			
GAS TURBINE, **CTG** #2, NATURAL GAS, GENERAL ELECTRIC, MODEL **S**107H, **(MAX RATING AT 36 DEGREES F)**~~COMBINED~~	D2	~~C18~~**C24**	NOx: MAJOR SOURCE**	**NOx**: 2.0 PPMV **NATURAL GAS** (4) [RULE 2005 BACT, RULE 1703-**PSD Analysis**]; NOx: ~~(COMMISSIONING)~~ 68.26	A63.1, A99.1, A99.3, A195.1, A195.2,

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* and Requirements	Conditions
~~CYCLE~~, WITH ~~DRY~~ LOW NOx BURNER~~S~~, 2,597 MMBtu/HR ~~(at 36 °F)~~ WITH: A/N: ~~439485~~**456169** **Permit to Construct Issued: 06/02/06** GENERATOR, **GENERATOR #2, SERVING CTG/HRSG GROUP 2,** 405 MW GENERATOR, ~~#2,~~ HEAT RECOVERY STEAM GENERATOR (HRSG) **#2**	~~B20~~ ~~B22~~			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 **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 GRAIN**S** PER 100 SCF **NATURAL GAS (4)** [RULE 1303-OFFSET]	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
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 : A/N: 439489 **Permit to Construct Issued: 08/05/05** AMMONIA INJECTION~~, INJECTION GRID~~	C5 ~~B25~~	~~C18~~**C24**		**NH3**: 5 PPMV **NATURAL GAS** (4) [RULE 1303-BACT]	A195.7, D12.~~,~~-1, D12.2, D12.3, D29.3, ~~D232.1,~~ E179.1, E179.2 **E193.1,** E193.3, **E193.4**
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 VII690VGXXXX, 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];	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
				PM10: 0.1 GRAINS/SCF 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:~~439492~~**456170** **Permit to Construct Issued: 06/02/06**	S31	C6			
~~IC~~ **INTERNAL COMBUSTION** ENGINE, EMERGENCY **POWER, LEAN BURN, EMERGENCY GENERATOR** #1, DIESEL **FUEL**, CATERPILLAR, MODEL ~~G~~3516B~~-~~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**~~,~~,	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]	C1.1, D12.4, D12.5, K67.2, E193.1,

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* and Requirements	Conditions
CATERPILLAR, MODEL ~~G~~3516B_DITA, 2,848 HP, WITH PERMIT **CATALYTIC/PARTICULATE** FILTER, WITH: A/N: 439495 **Permit to Construct Issued: 08/05/05** GENERATOR: 2,000 KW				**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**]	E193.3, I296.4
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 LB**S**/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:~~	D8				E144.1, C157.1, E193-**.**1, E193.3~~,~~

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* and Requirements	Conditions
A/N: 439498 **Permit to Construct Issued: 08/05/05**					
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.

IT IS SO ORDERED.

Date: April 11, 2007

STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

JACKALYNE PFANNENSTIEL, Chair