DOCKETED

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Project Title:	Los Esteros Phase II Compliance
TN #:	200404
Document Title:	Order Approving Petition to Amend the Monitoring and Initial Source Testing Conditions and Allow for Additional Turbine On-Site
Description:	N/A
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CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512
www.energy.ca.gov

STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:	)	
LOS ESTEROS CRITICAL ENERGY FACILITY PHASE 2 PROJECT	)	**Docket No. 03-AFC-2C**
	)	**Order No.**
LOS ESTEROS CRITICAL ENERGY FACILITY, LLC	)	**ORDER APPROVING a petition to amend the monitoring and initial source testing conditions and allow for an additional turbine on-site.**

On November 28, 2012, Los Esteros Critical Energy Facility, LLC, filed a petition with the California Energy Commission (Energy Commission) requesting to modify the Energy Commission Final Decision for the Los Esteros Critical Energy Facility Phase 2 project. The project owner is requesting revisions to the Air Quality Conditions of Certification to amend the monitoring and initial source testing conditions and make other administrative changes which will ensure that the latest Authority to Construct (ATC) issued by the Bay Area Air Quality Management District (BAAQMD) is consistent with the Energy Commission Conditions of Certification.

The project applicant did not request any changes to emissions limits for this project, and the proposed modifications would not result in increased air quality emissions.

STAFF RECOMMENDATION

Energy Commission staff reviewed the petition, finds that it complies with the requirements of Title 20, Section 1769(a) of the California Code of Regulations and recommends approval of the Los Esteros Critical Energy Facility, LLC, petition to modify the Los Esteros Critical Energy Facility Phase 2 project and modify conditions **AQ-11**, **19**, **20**, **21**, **22**, **24**, **25**, **26**, **27**, **32**, **44**, **45**, and the addition of **AQ-48** in order to assure compliance with LORS and to ensure that air emission remain at a less than significant level.

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) of the California Code of Regulations, concerning post-certification project modifications;
- The modification will not change the findings in the Energy Commission's Final Decision, pursuant to Title 20, section 1755;
- There will be no new or additional unmitigated, significant environmental impacts associated with the proposed changes;
- The facility will remain in compliance with all applicable Laws, Ordinances, Regulations and Standards;
- The modification(s) proposed in the petition would continue to comply with both the mass and concentration emission limits as they currently exist and not result in the violation of any existing air quality standards;
- There has been a substantial change in circumstances since the Energy Commission certification, thus justifying the changes.

CONCLUSION AND ORDER

The California Energy Commission hereby adopts staff's recommendations and approves the following changes to the Commission Decision for the Los Esteros Critical Energy Facility Phase 2 project. New language is shown as **bold and underlined**, and deleted language is shown in ~~strikeout~~.

CONDITIONS OF CERTIFICATION

Staff recommends the modification of the following existing air quality conditions of certification and the addition of Air Quality Condition of Certification **AQ-48**. **Bold underline** is used to indicate new language. ~~Strikethrough~~ is used to indicate deleted language.

Definitions

Clock Hour:	Any continuous 60-minute period beginning on the hour.
Calendar Day:	Any continuous 24-hour period beginning at 12:00 AM or 0000 hours.
Year:	Any consecutive twelve-month period of time.
Heat Input:	All heat inputs refer to the heat input at the higher heating value (HHV) of the fuel, in BTU/scf.
Firing Hours:	Period of time, during which fuel is flowing to a unit, measured in fifteen-minute increments.
MMBTU:	million British thermal units.
Gas Turbine Start-up Mode:	The lesser of the first 120 minutes of continuous fuel flow to the **g**~~G~~as ~~T~~**t**urbine after fuel flow is initiated or the period of time from

	g~~G~~as ~~T~~**t**urbine fuel flow initiation until the **g**~~G~~as **t**~~T~~urbine achieves two consecutive CEM data points in compliance with the emission concentration limits of ~~c~~**C**onditions~~s~~ **of Certification AQ-19 subparts** ~~19(a)~~ and ~~19(c)~~ and is in compliance with the emission limits contained in **subparts** ~~19(a) through~~ and ~~19(dc)~~.
Gas Turbine Shutdown Mode:	The lesser of the 30 minute period immediately prior to the termination of fuel flow to the **g**~~G~~as ~~T~~**t**urbine or the period of time from non-compliance with any requirement listed in **Condition**~~s~~ **of Certification AQ-**19 **subparts** ~~(a)~~ through ~~19(d)~~ until termination of fuel flow to the **g**~~G~~as ~~T~~**t**urbine.
Corrected Concentration:	The concentration of any pollutant (generally NOx, CO or NH_3) corrected to a standard stack gas oxygen concentration. For a **g**~~G~~as ~~T~~**t**urbine emission point, the standard stack gas oxygen concentration is 15% O_2 by volume on a dry basis.
Commissioning Activities **(initial startup):**	All testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers and the construction contractor to insure safe and reliable steady state operation of the gas turbines, heat recovery steam generators, steam turbine, and associated electrical delivery systems.
Commissioning Period **(during initial startup):**	The period shall commence when all mechanical, electrical, and control systems are installed and individual system completed, or when a gas turbine is first fired following the installation of the duct burners and associated equipment, whichever occurs first. The period shall terminate when the plant has completed performance testing, is available for commercial operation, and has initiated sales of power to the grid. The **c**~~C~~ommissioning **p**~~P~~eriod shall not exceed 180 days under any circumstances.
Alternate Calculation:	A District approved calculation used to calculate mass emission data during a period when the CEM or other monitoring system is not capable of calculating mass emissions.
Precursor Organic Compounds (POCs):	Any compound of carbon, excluding methane, ethane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate.

Equipment Description

S-1 Combustion Gas Turbine #1 with Water Injection and high efficiency inlet air filter, General Electric LM6000PC Sprint, natural gas fired, 49.4 MW, 500 MM Btu/hr (HHV) maximum heat input rating; abated by A-9 Oxidation Catalyst and A-10 Selective Catalytic Reduction System.

S-2 Combustion Gas Turbine #2 with Water Injection and high efficiency inlet air filter, General Electric LM6000PC Sprint, natural gas fired, 49.4 MW, 500 MM Btu/hr (HHV) maximum heat input rating; abated by A-11 Oxidation Catalyst and A-12 Selective Catalytic Reduction System.

S-3 Combustion Gas Turbine #3 with Water Injection and high efficiency inlet air filter, General Electric LM6000PC Sprint, natural gas fired, 49.4 MW, 500 MM Btu/hr (HHV) maximum heat input rating; abated by A-13 Oxidation Catalyst and A-14 Selective Catalytic Reduction System.

S-4 Combustion Gas Turbine #4 with Water Injection and high efficiency inlet air filter, General Electric LM6000PC Sprint, natural gas fired, 49.4 MW, 500 MM Btu/hr (HHV) maximum heat input rating; abated by A-15 Oxidation Catalyst and A-16 Selective Catalytic Reduction System.

S-5 Fire Pump Diesel Engine, Clarke Model JW6H-UF40, 300 BHP, 14.5 gal/hr fuel consumption rate.

S-7 Heat Recovery Steam Generator #1, equipped with low-NOx Duct Burners, 139 MM Btu/hr (HHV) abated by A~~1~~-9 Oxidation Catalyst and A-10 Selective Catalytic Reduction System.

S-8 Heat Recovery Steam Generator #2, equipped with low-NOx Duct Burners, 139 MM Btu/hr (HHV) abated by A-11 Oxidation Catalyst, and A-11 Oxidation Catalyst and A-12 Selective Catalytic Reduction System.

S-9 Heat Recovery Steam Generator #3, equipped with low-NOx Duct Burners, 139 MM Btu/hr (HHV) abated by A-13 Oxidation Catalyst and A-14 Selective Catalytic Reduction System.

S-10 Heat Recovery Steam Generator #4, equipped with low-NOx Duct Burners, 139 MM Btu/hr (HHV) abated by A-15 Oxidation Catalyst and A-16 Selective Catalytic Reduction System.

S-11 Six-Cell Cooling Tower, 73,000 gallons per minute with drift eliminator of 0.005% removal efficiency.

S-13 Fire Pump Engine, 282hp, 2012 or later model year, John Deere Family CJDXL13.5103 or Cummins Family ACEXL0540AAB, which Los Esteros may construct at its option to replace existing S-5, Fire Pump Engine

AQ-11 Within ~~sixty~~ **one hundred and twenty** (~~60~~**120**) days of startup, the owner/operator shall conduct a District approved source test using external continuous emission monitors to determine compliance with part ~~1~~**2**0. The source test shall determine NOx, CO and POC emissions during start~~-~~up and shutdown of the gas turbines. **The results of the source test must be submitted within 165 days of initial startup.** The POC emissions shall be analyzed for methane and ethane to account for the presence of unburned natural gas. The source test shall include a minimum of three start~~-~~up and three shutdown periods. Thirty (30) days before the execution of the source tests, the

owner/operator shall submit to the District a detailed source test plan designed to satisfy the requirements of this part. The owner/operator shall be notified of any necessary modifications to the plan within twenty (20) working days of receipt of the plan; otherwise, the plan shall be deemed approved. The Owner/Operator shall incorporate the District comments into the test plan. The owner/operator shall notify the District within ten (10) days prior to the planned source testing date. Source test results shall be submitted to the District within sixty (60) days of the source testing date. These results can be used to satisfy applicable source testing requirements in **AQ-26** below (Basis: offsets.)

Verification: The project owner/operator shall submit the source test plan and results as required in the time frames indicated in this Condition of Certification.

AQ-19 Emissions Limits: The project owner shall operate the facility such that none of the following limits are exceeded:

a. The emissions of oxides of nitrogen (as NO_2) from emission points P-1, P-2, P-3, and P-4 (combined exhaust of gas turbine/HRSG power trains S-1 & S-7, S-2 & S-8, S-3 & S-9, and S-4 & S-10,respectively) each shall not exceed 2.0 ppmvd @ 15% O_2 (1-hour rolling average), except during periods of gas turbine startup and shutdown and shall not exceed 4.68 lb/hour (1-hour rolling average) except during periods of gas turbine startup as defined in this permit. The NO_x emission concentration shall be verified by a District-approved continuous emission monitoring system (CEMS) and during any required source test. (Basis: BACT.)

b. Emissions of ammonia from emission points P-1, P-2, P-3, and P-4 (combined exhaust of gas turbine/HRSG power trains S-1 & S-7, S-2 & S-8, S-3 & S-9, and S-4 & S-10, respectively) each shall not exceed 5 ppmvd @ 15% O_2 (3-hour rolling average), except during periods of start-up or shut-down as defined in this permit. The ammonia emission concentration shall be verified by the continuous recording ~~of the ratio~~ of the ammonia injection rate**,** ~~to~~ the NO_x inlet ~~rate~~ **emissions** into the SCR control system**, the NOx outlet rate at the stack, and the total heat input of the combustion turbine and duct burner, using a District-approved ammonia slip calculation** ~~(molar ratio). The maximum allowable NH3/NO_x molar ratio shall be determined during any required source test, and shall not be exceeded until reestablished through another valid source test.~~ (Basis: Regulation 2-5)

c. Emissions of carbon monoxide (CO) from emission points P-1, P-2, P-3, and P-4 (combined exhaust of gas turbine/HRSG power trains S-1 & S-7, S-2 & S-8, S-3 & S-9, and S-4 & S-10, respectively) each shall not exceed 2.0 ppmvd @ 15 % O_2 (1-hour rolling average), except during periods of start-up or shut-down as defined in this permit; and shall not exceed 2.85 lb/hr (1-hour rolling average) except during periods of start-up as defined in this permit. The CO emission concentration shall be verified by a District-approved CEMS and during any required source test. (Basis: BACT.)

d. Emissions of precursor organic compounds (POC) from emission points P-1, P-2, P-3, and P-4 (combined exhaust of gas turbine/HRSG power trains S-1 & S-7, S-2 & S-8, S-3 & S-9, and S-4 & S-10, respectively) each shall not exceed 1 ppmvd @ 15% O2 (1-hour ~~rolling~~ average), except during periods of gas turbine start-up or shut-down as defined in this permit; and shall not exceed 0.81 lb/hr (1-hour ~~rolling~~ average) except during periods of start-up as defined in this permit. The POC emission concentration shall be verified during any required source test. (Basis: BACT.)

Verification: The project owner shall verify compliance with this Condition of Certification in each quarterly report required by Condition of Certification **AQ-34**.

AQ-20 Turbine Start-up: The project owner shall ensure that the regulated air pollutant mass emission rates from each of the Gas Turbines (S-1, **S-2,** ~~&~~ S-3**, and S-4**) during a start-up do not exceed the limits established below. (Basis: Cumulative increase, BACT)

	Duration (Minutes)	NOx (lb/Event)	CO (lb/event)	POC (lb/event)
Start-Up	120	41	20	2

Verification: The project owner shall verify compliance with this Condition of Certification in each quarterly report required by Condition of Certification **AQ-34**.

AQ-21 Turbine Shutdown: The project owner shall operate the gas turbines so that the duration of a shutdown does not exceed 30 minutes per event, or other time period based on good engineering practice that has been approved in advance by the BAAQMD. ~~Shutdown begins with the initiation of the turbine shutdown sequence and ends with the cessation of turbine firing.~~ (Basis: Cumulative increase)

Verification: The project owner shall verify compliance with this Condition of Certification in each quarterly report required by Condition of Certification AQ-34.

AQ-22 **Mass Emission Limits**: The project owner shall operate the LECEF so that the mass emissions from the S-1, S-2, S-3 & S-4 Gas Turbines and S-7, S-8, S-9, & S-10 HRSGs do not exceed the daily and annual mass emission limits specified below. The project owner shall implement process computer data logging that includes running emission totals to demonstrate compliance with these limits so that no further calculations are required.

Mass Emission Limits (Including Gas Turbine Start-ups and Shutdowns)

Pollutant	Each Turbine/HRSG Power Train	All 4 Turbine/HRSG Power Trains	All 4 Turbine/HRSG Power Trains

	(lb/day)	(lb/day)	(ton/yr)
NOx (as NO_2)	175.6	702.4	94.1
POC	20.2	80.8	12.3
CO	97.0	388.0	53.4
SOx (as SO_2)			6.43
PM_{10}			38.5
NH_3	104	416	56.9

The daily mass limits are based upon calendar day per the definitions section of the permit conditions. Compliance with the daily limits shall be based on ~~calendar average~~ one-hour readings through the use of process monitors (e.g., fuel use meters) CEMS, source test results, and the monitoring, record keeping and reporting conditions of this permit. If any part of ~~the~~ **a** CEM **or parametric monitor** involved in the mass emission calculations is inoperative for more than **a clock hour** ~~three consecutive hours~~ of plant operation, the mass data for the ~~period of~~ inoperative **period** shall be calculated using a District-approved alternate calculation method. The annual mass limits are based upon a rolling ~~8,760-hour~~ 12 **calendar month** period ~~ending on the last hour~~. Compliance with the annual limits for NOx, POC, and **CO**~~SOx~~ shall be demonstrated in the same manner as for the daily limits. **Compliance with the daily and annual emissions limits for POC from each gas turbine/HRSG train shall be calculated by multiplying turbine and HRSG fuel usage times and an emission factor determined by source testing of the turbine/HRSG conducted in accordance with AQ-26**. Compliance with the annual emissions limits for PM_{10} and SO_2 from each gas turbine**/HRSG** shall be calculated by multiplying turbine fuel usage times an emission factor determined by source testing of the turbine**/HRSG** conducted in accordance with Part 26 **(AQ-26)** of the BAAQMD permit. The emission factor for each turbine**/HRSG** shall be based on the average of the emissions rates observed during the 4 most recent source tests on that turbine**/HRSG** (or, prior to the completion of 4 source tests on a turbine**/HRSG**, on the average of the emission rates observed during all source tests on the turbine**/HRSG**). (Basis: cumulative increase, record keeping.)

Verification: The project owner shall verify compliance with this Condition of Certification in each quarterly report required by Condition of Certification **AQ-34**.

AQ-24 **Operational Limits**: In order to comply with the mass emission limits of this rule, the project owner shall operate the gas turbines and HRSGs so that they comply with the following operational limits:

a. Heat input limits (Higher Heating Value):

	Each Gas Turbine w/o Duct Burner	Each Gas Turbine w/Duct Burner
Hourly:	500 MM BTU/hr	639 MM BTU/hr

Daily:	12,000 MM BTU/day	15,336 MM BTU/day
Four Turbine/HRSG Power Trains combined:		18,215,000 MM BTU/year

b. Only PUC-Quality natural gas (General Order 58-a) shall be used to fire the gas turbines and HRSGs. The total sulfur content of the natural gas shall not exceed 1.0 gr/100 scf. To demonstrate compliance with this sulfur content limit, the project owner shall sample and analyze the gas from each supply source at least monthly to determine the sulfur content of the gas, in addition to any monitoring requirements specified in ~~condition~~ **AQ-29**. **The owner/operator may obtain the data from each source of natural gas monthly. In this case, the data must be real data based on actual sulfur analyses performed by the supplier of natural gas and not assurances that the natural gas meets all specifications.** (Basis: BACT for SO_2 and PM_{10}.)

c. The project owner of the gas turbines and HRSGs shall demonstrate compliance with the daily and annual NO_x and CO emission limits listed in **AQ-22** by maintaining running mass emission totals based on CEM data.(Basis: Cumulative increase)

Verification: The project owner shall verify compliance with this Condition of Certification in each quarterly report required by Condition of Certification **AQ-34**. **If the owner/operator uses data obtained from the source of the natural gas, then the data must demonstrate that the sulfur content is below 1.0 gr/100 scf for each day of the month the facility is in operation.**

AQ-25 Monitoring Requirements: The owner/operator shall ensure that each gas turbine/HRSG power train complies with the following monitoring requirements:

a. The gas turbine/HRSG exhaust stack shall be equipped with permanent fixtures to enable the collection of stack gas samples consistent with EPA test methods.

b. The ammonia injection system shall be equipped with an operational ammonia flow meter ~~and injection pressure indicator~~ accurate to plus or minus five percent at full scale and shall be calibrated at least once every twelve months **and an injection pressure indicator**.

c. The gas turbine/HRSG exhaust stacks shall be equipped with continuously recording emissions monitor(s) for NOx, CO and O_2. Continuous emissions monitors **for CO** shall comply with the requirements of 40 CFR Part 60, Appendices B and F**.**~~, and~~ **Continuous emissions monitors for NOx and O_2 shall comply with the requirements of** 40 CFR Part 75**.**~~, and~~ **All CO, NOx and O_2 monitors** shall be capable of monitoring concentrations and

mass emissions during normal operating conditions and during gas turbine startups and shutdowns.

d. The fuel heat input rate shall be continuously recorded using District-approved fuel flow meters along with quarterly fuel compositional analyses for the fuel's higher heating value (wet basis).

Verification: The owner/operators shall make access available to the facility and records upon request as set forth in Condition of Certification **AQ-15**.

AQ-26 ~~Source Testing~~/RATA: Within **one hundred and twenty** ~~ninety~~ (~~90~~**120**) days of the **initial** startup **of** the gas turbines and HRSGs, and at a minimum on an annual basis thereafter, the owner/operator shall perform a relative accuracy test audit (RATA) on the **CO** CEMS in accordance with 40 CFR Part 60 Appendix B, Performance Specifications**, and on the NOx and O_2 CEMs in accordance with 40 CFR Part 75.**and

Source Testing: ~~a~~**A** source test shall be performed **on an annual basis**. Additional source testing may be required at the discretion of the District to address or ascertain compliance with the requirements of this permit. The written test results of the source tests shall be provided to the District within ~~thirty~~**sixty** days after testing. A complete protocol shall be submitted to the District no later than 30 days prior to testing, and notification to the District at least ten days prior to the actual date of testing shall be provided so that a District observer may be present. The source test protocol shall comply with the following measurements of NOx, CO, POC, and stack gas oxygen content shall be conducted in accordance with ARB Test Method 100; measurements of PM10 shall be conducted in accordance with ARB Test Method 5; and measurements of ammonia shall be conducted in accordance with Bay Area Air Quality Management District test method ST-1B. Alternative test methods, and source testing scope, may also be used to address the source testing requirements of the permit if approved in advance by the District. The initial and **periodic** ~~annual~~ source tests shall **be conducted to show compliance with Conditions 19(a), 19(b), a9(c) and 19(d), and shall** include those parameters specified in the approved test protocol, and shall at a minimum include the following:

a. NOx – ppmvd at 15% O_2, ~~and~~ lb/MMBtu **and lb/hr** (as NO_2)

b. Ammonia – ppmvd at 15% O_2 (Exhaust)

c. CO – ppmvd at 15% O_2, ~~and~~ lb/MMBtu **and lb/hr** (Exhaust)

d. POC – ppmvd at 15% O_2, ~~and~~ lb/MMBtu **and lb/hr** (Exhaust)

e. PM10 – lb/hr (Exhaust)

f. SOx– lb/hr (~~Exhaust~~**Based on sulfur content of fuel as measured by utility**)

g. Natural gas consumption, fuel High Heating Value (HHV), and total fuel sulfur content

h. Turbine load in megawatts

i. Stack gas flow rate (DSCFM) calculated according to procedurs in U.S. EPA Method 19

j. Exhaust gas temperature (˚F)

k. Ammonia injection rate (lb/hr or moles/hr)

l. Water injection rate for each turbine at S-1, S-2, S-3, & S-4

(Basis: source test requirements & monitoring)

Verification: At least 30 days prior to the date of each source test, the owner/operator shall submit a source test protocol to the District and the CPM for approval. At least 10 days prior to the testing date, the owner/operator shall notify the District and the CPM of the date of the source test. NO more than 30 days after the date of the source test, the owner/operator shall submit the results of the RATA and source test to the District and the CPM for approval.

AQ-27 Within **120** ~~60~~ days of start-up of the LECEF in combined-cycle configuration and on a semi- annual basis thereafter, the project owner shall conduct a District approved source test on exhaust points P-1, P-2, P-3, and P-4 while each Gas Turbine/HRSG power train is operating at maximum load to demonstrate compliance with the SAM emission limit specified in **AQ-23**. **The results of the initial source test must be submitted within 165 days of startup. Subsequent source test must be submitted within 60 days of the date of the source test.** The project owner shall test for ~~(as a minimum)~~ ~~SO_2,~~ SO_3 **evaluated as H_2SO_4** and **sulfuric acid mist (**SAM**)**. After acquiring one year of source test data on these units, the project owner may petition the District to switch to annual source testing if test variability is acceptably low as determined by the District. (Basis: Regulation 2-2-306-SAM Periodic Monitoring)

Verification: The project owner shall verify compliance with this Condition of Certification in each quarterly report required by Condition of Certification **AQ-34**.

AQ-32 Recordkeeping: The owner/operator shall maintain the following records. The format of the records is subject to District review and approval:

a. hourly, daily, quarterly and annual quantity of fuel used and corresponding heat input rates

b. the date and time of each occurrence, duration, and type of any startup, shutdown, or malfunction along with the resulting mass emissions during such time period

c. emission measurements from all source testing, RATAs and fuel analyses

d. daily, quarterly and annual hours of operation

e. hourly records of NOx and CO emission concentrations and hourly ammonia injection rates and ammonia/NOx ratio

f. for the continuous emissions monitoring system; ~~performance testing,~~ **relative accuracy test audits**, evaluations, calibrations, checks, maintenance, adjustments, and any period of non-operation of any continuous emissions monitor (Basis: record keeping)

Verification: The owner/operators shall make access available to the facility and records upon request as set forth in Condition of Certification **AQ-15**.

AQ-44 To demonstrate compliance with **AQ-43,after each source test performed pursuant to AQ-43**, the project owner shall calculate and record ~~on an annual basis~~ the maximum projected annual emissions for the compounds specified in **AQ-43** using the maximum heat input of 18,215,000 MMBtu/year and the highest emission factor (pound of pollutant per MMBtu) determined by any source test of the S-1, S-2, S-3 & S-4 Gas Turbines and S-7, S-8, S-9, and S-10 HRSGs. If this calculation method results in an unrealistic mass emission rate the applicant may use an alternate calculation, subject to District approval. (Basis: ~~TRMP~~ **Regulation 2-5.)**

Verification: Within 60 days of the completion of any health risk assessment, the project owner shall submit a complete report to the District and the CPM for review.

AQ-45 Within ~~60~~120 days of **initial** start-up of the Los Esteros Critical Energy Facility and on a biennial (once every two years) **basis** thereafter, the project owner shall conduct a District-approved source test at exhaust point P-1, P-2, P-3, or P-4 while the Gas Turbines are at maximum allowable operating rates to demonstrate compliance with ~~Part~~**AQ-44**. **The results of the initial source test must be submitted within 165 days of initial startup. Subsequent source test results must be submitted within 60 days of the date of the source test.** If three consecutive biennial source tests demonstrate that the annual emission rates for any of the compounds listed above calculated pursuant to part ~~43~~5 are less than the BAAQMD Toxic Risk Management Policy trigger levels shown below, then the project owner may discontinue future testing for that pollutant.

Formaldehyde	<	132 lb/yr
Acetaldehyde	<	288 lb/yr

Specified PAHs	<	0.18 lb/yr
Acrolein	<	15.6 lb/yr

(Basis: BAAQMD 2-1-316, Regulation 2-5)

Verification: At least 20 days prior to the intended source test date, the project owner shall submit a source testing methodology to the District and CPM for review and approval. Within 30 days of the source testing date, all test results shall be submitted to the District and the Energy Commission CPM.

AQ-48 S14 is a GE LM6000 turbine that is equivalent to the four existing gas turbines and is used as a substitute while one of the existing turbines is being maintained. The owner/operator may substitute S-14, Combustion Gas Turbine #5 into any of the four power trains at any time (S-1/S-7, S-2/S-8, S-3/S-9 and S-4/S-10).The owner/operator shall ensure that the power train operating with S-14 complies with all permit conditions for that power train. The owner/operator shall operate no more than four turbines at any time. (Basis: Cumulative Increase)

Verification: The project owner shall include in each quarterly report required by Condition of Certification AQ-34 a log including each day when S-14 is used, documentation on which turbine S-14 is replacing, a statement certifying that the turbine being replaced is not in operation at the same time S-14 is in operation, and the duration of the time period that S14 is fired.

IT IS SO ORDERED.

CERTIFICATION

The undersigned Secretariat to the Commission does hereby certify that the foregoing is a full, true, and correct copy of an Order duly and regularly adopted at a meeting of the California Energy Commission held on August 27, 2013.

AYE: Douglas, Hochschild, McAllister, Scott
NAY:
ABSENT: Weisenmiller
ABSTAIN:

Harriet Kallemeyn by LM

Harriet Kallemeyn
Secretariat