Bay Area Air Quality Management District

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San Francisco, CA 94109
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Permit Evaluation and Statement of Basis For Minor Revision of the

MAJOR FACILITY REVIEW PERMIT

for

Los Esteros Critical Energy Facility, LLC
Facility #B3289

Facility Address:
800 Thomas Foon Chew Way
San Jose, CA 95134

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December 2014

Application Engineer: Brenda Cabral
Site Engineer: Brenda Cabral

Applications: 24976, 25872

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Title V Statement of Basis

A. Background

This facility is subject to the Operating Permit requirements of Title V of the federal Clean Air Act, Title 70 of Volume 40 of the Code of Federal Regulations (CFR), and BAAQMD Regulation 2, Rule 6, Major Facility Review because it is a major facility as defined by BAAQMD Regulation 2-6-212 and a Phase II Acid Rain facility as defined by BAAQMD Regulation 2-6-217. It is an Acid Rain facility because it burns fossil fuel, serves a generator that is over 25 MW that is used to generate electricity for sale, and was built after November 15, 1990. It is a major facility because it has the "potential to emit," as defined by BAAQMD Regulation 2-6-218, more than 100 tons per year of ammonia.

Major Facility Operating permits (Title V permits) must meet specifications contained in 40 CFR Part 70 as contained in BAAQMD Regulation 2, Rule 6. The permits must contain all applicable requirements (as defined in BAAQMD Regulation 2-6-202), monitoring requirements, recordkeeping requirements, and reporting requirements. The permit holders must submit reports of all monitoring at least every six months and compliance certifications at least every year.

In the Bay Area, state and District requirements are also applicable requirements and are included in the permit. These requirements can be federally enforceable or non-federally enforceable. All applicable requirements are contained in Sections I through VI of the permit.

Each facility in the Bay Area is assigned a facility identifier that consists of a letter and a 4-digit number. This identifier is also considered to be the identifier for the permit. The identifier for this facility is B3289.

This facility received its initial Title V permit on June 10, 2004. The permit was renewed on June 6, 2012. The renewal included a significant revision to the permit.

This Statement of Basis covers two applications. The purpose of Application #24972 is to make changes in monitoring conditions and to allow an alternate fire pump. The purpose of Application #25872 is to allow a spare turbine.

The proposed permit shows all proposed changes to the permit in strikeout/underline format.

B. Facility Description

The LECEF is an electric generating facility. It is located in the northern edge of the city of San Jose in Santa Clara County. The facility was online and selling electricity to the

grid in March of 2003 as a simple-cycle facility consisting of four natural gas-fired turbines and rated at 180 MW.

In January 2012, LECEF ceased operation in simple-cycle mode as part of its conversion to a 320 MW combined-cycle power plant. In a combined-cycle operation, the waste heat in the turbine exhaust is recovered to make steam to turn a steam turbine and generate additional electric power, which increases the plant's overall efficiency. The conversion to combined-cycle operation entailed the addition of four heat recovery steam generators (HRSGs), one steam turbine generator and one six-cell cooling tower.

This Statement of Basis covers two applications. The purpose of Application #24972 is to make changes in monitoring conditions and to allow an alternate fire pump. The purpose of Application #25872 is to allow a spare turbine.

The changes in monitoring, the alternate fire pump, and the spare turbine were the subject of a District permit pursuant to Application 24977. The evaluation for this application is attached as Appendix B and forms part of this Statement of Basis. The evaluation explains the changes to monitoring, the Authority to Construct to replace the existing fire pump engine with one of two specific fire pump engines in the future, and the permit for a spare turbine.

The change in conditions consists entirely of changes to monitoring, recordkeeping, and reporting. BAAQMD Regulation 2-6-226.3 defines a significant revision to the Title V permit as:

> "Any significant change or relaxation of any applicable monitoring, reporting or recordkeeping condition."

Although the proposed changes are many, they are not a relaxation or a significant change to the monitoring, reporting, or recordkeeping. The District is not proposing to make changes that are a relaxation or significant, such as reducing the frequency of source tests or RATAs.

The fuel sulfur data supplied by the utility will be of equal quality to analyses by the facility, so use of utility data is not a relaxation.

Use of fuel sulfur data to calculate SO2 is more conservative than testing. Therefore, the change to part 26 of the conditions is not a relaxation.

Since the changes in conditions are not considered significant revisions, they are defined as minor revisions. Changes to the ammonia monitoring are not federally enforceable, so any changes to ammonia monitoring would be administrative amendments, as defined by BAAQMD Regulation 2-6-201.

The facility is allowed to act on any minor revisions as soon as it is approved in accordance with BAAQMD Regulation 2-6-406.

The possible replacement of the fire pump engine is a minor revision because there will be no increase in emissions. The new engine will be smaller than the existing engine and will be a 2012 or later model, so the emissions will be lower.

The installation of a spare turbine is a minor revision because there will be no change in emissions. The turbines are identical and will utilize the same control equipment, SCR and oxidation catalyst, so there will be no change in emissions.

See the evaluation for Application 24977 in Appendix B for the details.

C. Permit Content

The legal and factual basis for the permit follows. The permit sections are described in the order presented in the permit.

I. Standard Conditions

This section contains administrative requirements and conditions that apply to all facilities. The section contains a standard condition pertaining to Title IV (Acid Rain) requirements for fossil-fuel fired electrical generating facilities and the accidental release (40 CFR § 68) since these programs apply. Many of these conditions derive from 40 CFR § 70.6, Permit Content, which dictates certain standard conditions that must be placed in the permit. The language that the District has developed for many of these requirements has been adopted into the BAAQMD Manual of Procedures, Volume II, Part 3, Section 4, and therefore must appear in the permit.

The standard conditions also contain references to BAAQMD Regulation 1 and Regulation 2. These are the District's General Provisions and Permitting rules.

Changes to permit:
The dates in Paragraph 1.B.1 have been corrected. This is an administrative amendment per BAAQMD Regulation 2-6-201 because the errors were typos.

II. Equipment

This section of the permit lists all permitted or significant sources. Each source is identified by an S and a number (e.g., S24).

Permitted sources are those sources that require a BAAQMD operating permit pursuant to BAAQMD Rule 2-1-302.

Significant sources are those sources that have a potential to emit of more than 2 tons per year of a "regulated air pollutant" (as defined in BAAQMD Rule 2-6-222) or 400 pounds per year of a "hazardous air pollutant" (as defined in BAAQMD Rule 2-6-210).

All abatement (control) devices that control permitted or significant sources are listed. Each abatement device whose primary function is to reduce emissions is identified by an A and a number (e.g., A-24). If a source is also an abatement device, such as when an engine controls VOC emissions, it will be listed in the abatement device table but will have an "S" number. An abatement device may also be a source (such as a thermal oxidizer that burns fuel) of secondary emissions. If the primary function of a device is to control emissions, it is considered an abatement (or "A") device. If the primary function of a device is a non-control function, the device is considered to be a source (or "S").

The equipment section is considered to be part of the facility description. It contains information that is necessary for applicability determinations, such as fuel types, contents or sizes of tanks, etc. This information is part of the factual basis of the permit.

Each of the permitted sources has previously been issued an authority to construct or a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. These permits are issued in accordance with state law and the District's regulations. The capacities in the permitted sources table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-403.

Changes to permit

A note has been added showing that S5, Fire Pump Engine, may be replaced with S13, Fire Pump Engine. The year of manufacture for S5 has been added.

S13, Fire Pump Engine, and S14, Gas Turbine Generator, have been added.

Table II-A - Permitted Sources

Each of the following sources has been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. The capacities in this table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-301.

S#	Description	Make or Type	Model	Capacity
5	Fire Water Pump Diesel Engine (may be replaced w/S13 in future)	Clarke 2002	JW6H-UF40	300 bhp 14.5 gal/hr
13	Fire Water Pump Diesel Engine (may be installed in future)	2012 or later model year Deere (Family CJDXL13.5103) or 2012 or later model year Cummins (Family ACEXL0540AAB)		282 bhp

Table II-A - Permitted Sources

Each of the following sources has been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. The capacities in this table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-301.

S#	Description	Make or Type	Model	Capacity
14	Gas Turbine Generator, Natural Gas fired with water injection, 49.4 MW nominal	General Electric	LM6000PC	500 MMbtu/hr (HHV)

III. Generally Applicable Requirements

This section of the permit lists requirements that generally apply to all sources at a facility including insignificant sources and portable equipment that may not require a District permit. If a generally applicable requirement applies specifically to a source that is permitted or significant, the standard will also appear in Section IV and the monitoring for that requirement will appear in Sections IV and VII of the permit. Parts of this section apply to all facilities (e.g., particulate, architectural coating, odorous substance, and sandblasting standards). In addition, standards that apply to insignificant or unpermitted sources at a facility (e.g., refrigeration units that use more than 50 pounds of an ozone-depleting compound) are placed in this section.

Unpermitted sources are exempt from normal District permits pursuant to an exemption in BAAQMD Regulation 2, Rule 1. They may, however, be specifically described in a Title V permit if they are considered "significant sources" as defined in BAAQMD Rule 2-6-239.

Changes to Permit:
There are no changes to Section III of the permit in this action.

IV. Source-Specific Applicable Requirements

This section of the permit lists the applicable requirements that apply to permitted or significant sources. These applicable requirements are contained in tables that pertain to one or more sources that have the same requirements. The order of the requirements is:

- District Rules
- SIP Rules (if any) are listed following the corresponding District rules. SIP rules are District rules that have been approved by EPA for inclusion in the California State Implementation Plan. SIP rules are "federally enforceable" and a "Y" (yes) indication will appear in the "Federally Enforceable" column. If the SIP rule is the current District rule, separate citation of the SIP rule is not necessary and the "Federally Enforceable" column will have a "Y" for "yes". If the SIP rule is not the

current District rule, the SIP rule or the necessary portion of the SIP rule is cited separately after the District rule. The SIP portion will be federally enforceable; the non-SIP version will not be federally enforceable, unless EPA has approved it through another program.

- Other District requirements, such as the Manual of Procedures, as appropriate.
- Federal requirements (other than SIP provisions)
- BAAQMD permit conditions. The text of BAAQMD permit conditions is found in Section VI of the permit.
- Federal permit conditions. The text of Federal permit conditions, if any, is found in Section VI of the permit.

Section IV of the permit contains citations to all of the applicable requirements. The text of the requirements is found in the regulations, which are readily available on the District's or EPA's websites, or in the permit conditions, which are found in Section VI of the permit. All monitoring requirements are cited in Section IV. Section VII is a cross-reference between the limits and monitoring requirements. A discussion of monitoring is included in Section C.VII of this permit evaluation/statement of basis.

Complex Applicability Determinations:

BAAQMD Regulation 6-1-311 and SIP Regulation 6-311, General Operations

The process weight standard in BAAQMD Regulation 6-1-311 and SIP Regulation 6-311 is being added to the requirements in Table IV-C, Cooling Towers. The allowable limit varies with the amount of material processed. In this case, the material is water. The maximum allowable filterable particulate is 40 lb/hr, if the process weight is over 57,320 lb/hr. The capacity of S11 is 73,000 gpm and the capacity of the other cooling tower is 16,000 gpm. In both cases, the process weight is over 57,320 lb/hr, as shown below:

8.34 lb/gal x 73,000 gal/min x 60 min/hr = 36.5 million lb/hr

8.34 lb/gal x 16,000 gal/min x 60 min/hr = 8 million lb/hr

The density of water is 8.34 lb/gal. The hourly emissions of filterable particulate can be calculated using the method in AP-42 Chapter 13.4. The drift of both cooling towers is given as 0.0005%. The TDS limit for S11 is 6,000 ppmw. For the smaller tower, which has no limit, the average in AP-42, 18,500 ppmw, will be used.

36.5 million lb/hr x 0.000005 x 0.006 = 1.095 lb/hr

8 million lb/hr x 0.000005 x 0.0185 = 0.74 lb/hr

Both cooling towers will comply with the 40 lb/hr limit.

Changes to permit:

The title for Table IV-A for Combustion Turbines and Heat Recovery Steam Generators, will be updated to add S14, Combustion Turbine, and the abbreviation "HRSG" was added to the title.

Parts 39 through 42 of Condition 23688 will be deleted from Table IV-A, because they apply solely to the fire pump engine.

Parts 46 and 47 of Condition 23688 will be deleted from Table IV-A, because they apply solely to S11, Cooling Tower.

Part 48 of Condition 23688, allowing use of S14 during maintenance of S1, S2, S3, or S4 has been added to Table IV-A.

A note has been added to the title for Table IV-B stating that S5 may be replaced by S13.

Parts 39 through 42 of Condition 23688 have been amended in Table IV-B, to show that the conditions apply to both S5 and S13.

The one cell cooling tower, which is a significant source as defined by Regulation 2-6-239 has been added to the title of Table IV-C. This source is subject to BAAQMD Regulation 6, Rule 1, Particulate Matter, General Requirements, and SIP Regulation 6, Particulate Matter and Visible Emissions. Sections 6-1-311 and 6-311 have been added, because they apply to cooling towers. Condition 23688, parts 46 and 47, which were omitted in error, have been added to the table. A note has been added to clarify that this condition applies to S11 only.

A new Table IV-D will be added for S-13, Fire Pump Engine. The date of manufacture of this engine will be after 2006 and therefore, it will have different requirements than S5. In particular, it is subject to the NSPS for new compression ignition engines, 40 CFR 60, Subpart IIII. This table has future effective dates for the requirements because it has not been installed.

V. Schedule of Compliance

A schedule of compliance is required in all Title V permits pursuant to BAAQMD Regulation 2-6-409.10 which provides that a major facility review permit shall contain the following information and provisions:

"409.10 A schedule of compliance containing the following elements:

10.1 A statement that the facility shall continue to comply with all applicable requirements with which it is currently in compliance;

10.2 A statement that the facility shall meet all applicable requirements on a timely basis as requirements become effective during the permit term; and

10.3 If the facility is out of compliance with an applicable requirement at the time of issuance, revision, or reopening, the schedule of compliance shall contain a plan by which the facility will achieve compliance. The plan shall contain deadlines for each item in the plan. The schedule of compliance shall also contain a requirement for submission of progress reports by the facility at least every six months. The progress reports shall contain the dates by which each item in the plan was achieved and an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted."

The facility entered into an Enforcement Agreement with the BAAQMD for possible non-compliance with the following CO limits in Condition 23688 on November 25, 2014:

- 2.0 ppmvd @ 15% O2 (1-hr rolling average) for each turbine/HRSG train
- 2.85 lb/hr (1-hr rolling average) for each turbine/HRSG train
- 97 lb/day for each turbine/HRSG train
- 388.0 lb/day for all four turbine/HRSG trains

The Enforcement Agreement will expire on November 1, 2015.

The Enforcement Agreement will impose the following limits until the expiration date of November 1, 2015.

- 4.0 ppmvd @ 15% O2 (1-hr rolling average) for each turbine/HRSG train
- 5.7 lb/hr (1-hr rolling average) for each turbine/HRSG train

The facility may not comply with the limits below, but no alternate limits have been established:

- 97 lb/day for each turbine/HRSG train
- 388.0 lb/day for all four turbine/HRSG trains

It is likely that the facility will comply with the above two limits because the facility does not operate continuously.

During the period of the Enforcement Agreement, the facility intends to move the CO catalyst into a hotter place in the HRSG ductwork. The applicant has stated that the CO catalyst activity will improve if it is operating at a higher temperature.

The pertinent details in the Enforcement Agreement have been added to the Schedule of Compliance in the proposed Title V permit.

A copy of the Enforcement Agreement is attached in Appendix C.

VI. Permit Conditions

During the Title V permit development, the District has reviewed the existing permit conditions, deleted the obsolete conditions, and, as appropriate, revised the conditions for clarity and enforceability. Each permit condition is identified with a unique numerical identifier, up to five digits.

When necessary to meet Title V requirements, additional monitoring, recordkeeping, or reporting has been added to the permit.

All changes to existing permit conditions are clearly shown in "strike-out/underline" format in the proposed permit. When the permit is issued, all 'strike-out" language will be deleted and all "underline" language will be retained, subject to consideration of comments received.

The existing permit conditions are derived from previously issued District Authorities to Construct (A/C) or Permits to Operate (P/O). Permit conditions may also be imposed or revised as part of the annual review of the facility by the District pursuant to California Health and Safety Code (H&SC) § 42301(e), through a variance pursuant to H&SC § 42350 et seq., an order of abatement pursuant to H&SC § 42450 et seq., or as an administrative revision initiated by District staff. After issuance of the Title V permit, permit conditions will be revised using the procedures in Regulation 2, Rule 6, Major Facility Review.

The regulatory basis is listed following each condition. The regulatory basis may be a rule or regulation. The District is also using the following terms for regulatory basis:

- BACT: This term is used for a condition imposed by the Air Pollution Control Officer (APCO) to ensure compliance with the Best Available Control Technology in Regulation 2-2-301.
- Cumulative Increase: This term is used for a condition imposed by the APCO, which limits a source's operation to the operation described in the permit application pursuant to BAAQMD Regulation 2-1-403.
- Offsets: This term is used for a condition imposed by the APCO to ensure compliance with the use of offsets for the permitting of a source or with the banking of emissions from a source pursuant to Regulation 2, Rules 2 and 4.
- PSD: This term is used for a condition imposed by the APCO to ensure compliance with a Prevention of Significant Deterioration permit issued pursuant to Regulation 2, Rule 2.
- Regulation 2, Rule 5: This term is used for a condition imposed by the APCO to ensure compliance with limits based on Regulation 2, Rule 5 New Source Review of Toxic Air Contaminants.

Changes to permit:
All changes to existing permit conditions are clearly shown in "strike-out/underline" format in the proposed permit. When the permit is issued, all 'strike-out" language will

be deleted and all "underline" language will be retained, subject to consideration of comments received.

Most changes to the permit conditions are amendments to monitoring. The detailed explanation is in the evaluation for Application 24977, which is attached in Appendix B and forms part of this Statement of Basis.

Changes were also made to allow the facility to replace the fire pump engine and to allow the use of a spare turbine during turbine maintenance.

Condition 23688, part 24b, limits the amount of sulfur in fuel. This existing limit has been added to Table VII-A. This condition was amended in Application 24977 to allow the facility to use vendor data instead of having to analyze the natural gas directly.

The citation for "monitoring type" for SO2 in Table VII-A has been amended to show that the facility can use vendor data for fuel sulfur content.

VII. Applicable Limits and Compliance Monitoring Requirements

This section of the permit is a summary of numerical limits and related monitoring requirements for each source. The summary includes a citation for each monitoring requirement, frequency of monitoring, and type of monitoring. The applicable requirements for monitoring are completely contained in Sections IV, Source-Specific Applicable Requirements, and VI, Permit Conditions, of the permit.

The monitoring was analyzed for adequacy at the time of the renewal of the Title V permit in 2012. The changes to monitoring in this application do not change the conclusions drawn in the Statement of Basis for the renewal. Most changes were corrections or added flexibility regarding the submittal of source tests. The monitoring of sulfur in natural gas and ammonia from the stacks did change and will be discussed.

For details of the changes to monitoring, see the permit evaluation for Application 24976 that is attached in Appendix B and which forms part of this Statement of Basis.

SO_2 Sources			
S# & Description	**Emission Limit Citation**	**Federally Enforceable Emission Limit**	**Monitoring**
S-1, S-2, S-3, S-4, & S-5 Combustion Gas Turbines, Diesel Fire Pump S-7, S-8, S-9, S-10 HRSGs	BAAQMD 9-1-301	Ground level concentrations of SO2 shall not exceed: 0.5 ppm for 3 consecutive minutes AND 0.25 ppm averaged over 60 consecutive minutes AND 0.05 ppm averaged over 24 hours	None
S-1, S-2, S-3, S-4, Combustion Gas Turbines S-7, S-8, S-9, S-10 HRSGs	BAAQMD 9-1-302	300 ppm (dry)	Fuel Gas Total sulfur content analysis or vendor sulfur data
S-1, S-2, S-3, S-4, Combustion Gas Turbines S-7, S-8, S-9, S-10 HRSGs	NSPS Subpart KKKK 40 CFR 60.4330(a)(2)	0.060 lb/SO2/MMbtu	None
S-1, S-2, S-3, S-4, Combustion Gas Turbines S-7, S-8, S-9, S-10 HRSGs	BAAQMD condition #23688, part 22 (combined cycle)	6.43 tons/calendar year for all turbines combined including startup and shutdown of turbines except during commissioning	Periodic Sulfur Analysis or vendor sulfur data, calculations Annual Source Test for capacity

SO_2 Discussion:

Condition 23688, part 24b, required the facility to analyze the sulfur content of the natural gas once per month. The applicant has stated that the utility analyzes the gas on a daily basis and wished to use that data instead. The condition was amended so that the applicant could use the data as long as the utility really did perform the sulfur analyses and the applicant did obtain them. The applicant will be allowed to use the analysis for the day of the annual source test.

NH_3 Sources			
S# & Description	**Emission Limit Citation**	**Federally Enforceable Emission Limit**	**Monitoring**
S-1, S-2, S-3, S-4, Combustion Gas Turbines S-7, S-8, S-9, S-10 HRSGs	BAAQMD condition #23688, part 19b	5 ppmv @ 15% O2, dry, averaged over 3 hrs except during turbine startup or shutdown	NH_3 flow meter, NOx monitoring at inlet to SCR and outlet
S-1, S-2, S-3, S-4, Combustion Gas Turbines S-7, S-8, S-9, S-10 HRSGs	BAAQMD condition #23688, part 19b	5 ppmv @ 15% O2, dry, averaged over 3 hrs except during turbine startup or shutdown	Source Test
S-1, S-2, S-3, S-4, Combustion Gas Turbines S-7, S-8, S-9, S-10 HRSGs	BAAQMD condition #23688, part 22	104 lb/day for each turbine including startup and shutdown	Ammonia flow meter, NOx monitoring at inlet to SCR and outlet
S-1, S-2, S-3, S-4, Combustion Gas Turbines S-7, S-8, S-9, S-10 HRSGs	BAAQMD condition #23688, part 22	416 lb/day for all turbines combined, including startup and shutdown	Ammonia flow meter, NOx monitoring at inlet to SCR and outlet
S-1, S-2, S-3, S-4, Combustion Gas Turbines S-7, S-8, S-9, S-10 HRSGs	BAAQMD condition #23688 part 22	56.9 tons/year for all turbines combined including startup and shutdown.	Source test

NH_3 Discussion:

Maximum Short-Term Concentration and Maximum Daily and Annual Mass Emissions

The facility will have the potential to emit ammonia (NH_3) from the SCR systems used to abate NOx emissions in the exhaust stream from the gas turbines/HRSGs. The ammonia is used to react with the NOx and convert it to elemental nitrogen and water. Some of the ammonia may not be fully reacted, however, and may end up being emitted in the exhaust from the SCR systems. Such emissions are called "ammonia slip".

The ammonia monitoring now refers to an ammonia slip calculation instead of requiring determination of a molar ratio.

Changes to permit:

The title for Table VII-A for Combustion Turbines and Heat Recovery Steam Generators, will be updated to add S14, Combustion Turbine, and the abbreviation "HRSG" was added to the title.

The hourly mass emission limit for CO in Condition 23688, part 19c, has been added to Table VII-A. Since it is already contained in the permit, this is an administrative amendment.

The monitoring type for the ammonia (NH_3) was amended to show that calculations of ammonia are required.

The one cell cooling tower, which is a significant source as defined by Regulation 2-6-239 has been added to the title of Table VII-C. This source is subject to BAAQMD Regulation 6, Rule 1, Particulate Matter, General Requirements, and SIP Regulation 6, Particulate Matter and Visible Emissions. Sections 6-1-311 and 6-311 have been added, because they apply to cooling towers. A note has been added to the limits in Condition 23688, part 46, to clarify that this condition applies to S11 only.

A new Table VII-D will be added for S-13, Fire Pump Engine. The date of manufacture of this engine will be after 2006 and therefore, it will have different requirements than S5. In particular, it is subject to the NSPS for new compression ignition engines, 40 CFR 60, Subpart IIII. This table has future effective dates for the requirements because it has not been installed.

VIII. Test Methods

This section of the permit lists test methods that are associated with standards in District or other rules. It is included only for reference. In most cases, the test methods in the rules are source test methods that can be used to determine compliance but are not required on an ongoing basis. They are not applicable requirements.

If a rule or permit condition requires ongoing testing, the requirement will also appear in Section IV of the permit.

Changes to permit:
SIP Regulation 6, which is identical to BAAQMD Regulation 6, Rule 1, except for the numbering and the title, has been added to this section.

IX. Acid Rain

Changes to permit:
The notes that state the SO2 allowance allocations will apply after the Phase II conversion have been deleted, since the conversion (simple cycle to combined cycle) is complete.

The comments in part 3 of the Acid Rain permit have been updated to include S7, S8, S9, and S10, Heat Recovery Heat Generators.

X. Permit Shield

The District rules allow two types of permit shields. The permit shield types are defined as follows: (1) A provision in a major facility review permit explaining that specific federally enforceable regulations and standards do not apply to a source or group of sources, or (2) A provision in a major facility review permit explaining that specific federally enforceable applicable requirements for monitoring, recordkeeping and/or reporting are subsumed because other applicable requirements for monitoring, recordkeeping, and reporting in the permit will assure compliance with all emission limits.

The second type of permit shield is allowed by EPA's White Paper 2 for Improved Implementation of the Part 70 Operating Permits Program. The District uses the second type of permit shield for all streamlining of monitoring, recordkeeping, and reporting requirements in Title V permits. The District's program does not allow other types of streamlining in Title V permits.

This facility does not have permit shields.

XI. Revision History

This section details the revision history of the facility's Title V permit.

Changes to permit:

The renewal permit contains the following updated information regarding the application for renewal:

Date	Action	Details
	Minor Revision	Applications 24976, 25872

XII. Glossary

This section contains terms that may be unfamiliar to the general public or EPA.

Changes to permit:
The term "HRSG," meaning "Heat Recovery Steam Generator" had been added.

The term "H2S" has been moved from under "HAP" to under "HRSG."

XIII. Title IV Permit Application

The Acid Rain permit application for the facility is part of the Title V permit and is included here.

D. Alternate Operating Scenarios

No alternate operating scenario has been requested for this facility.

APPENDIX A

Glossary

ACT
Federal Clean Air Act

APCO
Air Pollution Control Officer

ARB
Air Resources Board

BAAQMD
Bay Area Air Quality Management District

BACT
Best Available Control Technology

Basis
The rule or regulation that gives the District authority to impose requirements

CAA
The federal Clean Air Act

CAAQS
California Ambient Air Quality Standards

CAPCOA
California Air Pollution Control Officers Association

CEQA
California Environmental Quality Act

CFR
The Code of Federal Regulations - 40 CFR contains the implementing regulations for federal environmental statutes such as the Clean Air Act. Parts 50-99 of 40 CFR contain the requirements for air pollution programs.

CO
Carbon Monoxide

Cumulative Increase
The sum of permitted emissions from each new or modified source since a specified date pursuant to BAAQMD Rule 2-1-403, Permit Conditions (as amended by the District Board on 7/17/91) and SIP Rule 2-1-403, Permit Conditions (as approved by EPA on 6/23/95). Cumulative increase is used to determine whether threshold-based requirements are triggered.

District
The Bay Area Air Quality Management District

dscf
Dry Standard Cubic Feet

EPA
The federal Environmental Protection Agency.

Excluded
Not subject to any District regulations.

Federally Enforceable, FE
All limitations and conditions which are enforceable by the Administrator of the EPA including those requirements developed pursuant to 40 CFR Part 51, subpart I (NSR), Part 52.21 (PSD), Part 60 (NSPS), Part 61 (NESHAPs), Part 63 (MACT), and Part 72 (Permits Regulation, Acid Rain), including limitations and conditions contained in operating permits issued under an EPA-approved program that has been incorporated into the SIP.

FP
Filterable Particulate as measured by BAAQMD Method ST-15, Particulate.

HAP
Hazardous Air Pollutant. Any pollutant listed pursuant to Section 112(b) of the Act. Also refers to the program mandated by Title I, Section 112, of the Act and implemented by 40 CFR Part 63.

HRSG
Heat Recovery Steam Generator

Major Facility
A facility with potential emissions of: (1) at least 100 tons per year of regulated air pollutants, (2) at least 10 tons per year of any single hazardous air pollutant, and/or (3) at least 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity of hazardous air pollutants as determined by the EPA administrator.

MFR
Major Facility Review. The District's term for the federal operating permit program mandated by Title V of the Federal Clean Air Act and implemented by District Regulation 2, Rule 6.

MOP
The District's Manual of Procedures.

NAAQS
National Ambient Air Quality Standards

NESHAPS
National Emission Standards for Hazardous Air Pollutants. See in 40 CFR Parts 61 and 63.

NMHC
Non-methane Hydrocarbons (Same as NMOC)

NMOC
Non-methane Organic Compounds (Same as NMHC)

NOx
Oxides of nitrogen.

NSPS
Standards of Performance for New Stationary Sources. Federal standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the Federal Clean Air Act, and implemented by 40 CFR Part 60 and District Regulation 10.

NSR
New Source Review. A federal program for pre-construction review and permitting of new and modified sources of pollutants for which criteria have been established in accordance with Section 108 of the Federal Clean Air Act. Mandated by Title I of the Federal Clean Air Act and implemented by 40 CFR Parts 51 and 52 and District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

Offset Requirement
A New Source Review requirement to provide federally enforceable emission offsets for the emissions from a new or modified source. Applies to emissions of POC, NOx, PM10, and SO2.

Phase II Acid Rain Facility
A facility that generates electricity for sale through fossil-fuel combustion and is not exempted by 40 CFR 72 from Titles IV and V of the Clean Air Act.

POC
Precursor Organic Compounds

PM
Particulate Matter

PM10
Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns

PSD
Prevention of Significant Deterioration. A federal program for permitting new and modified sources of those air pollutants for which the District is classified "attainment" of the National Air Ambient Quality Standards. Mandated by Title I of the Act and implemented by both 40 CFR Part 52 and District Regulation 2, Rule 2.

SIP
State Implementation Plan. State and District programs and regulations approved by EPA and developed in order to attain the National Air Ambient Quality Standards. Mandated by Title I of the Act.

SO2
Sulfur dioxide

THC
Total Hydrocarbons (NMHC + Methane)

Title V
Title V of the federal Clean Air Act. Requires a federally enforceable operating permit program for major and certain other facilities.

TOC
Total Organic Compounds (NMOC + Methane, Same as THC)

TPH
Total Petroleum Hydrocarbons

TSP
Total Suspended Particulate

VOC
Volatile Organic Compounds

Units of Measure:

bhp	=	brake-horsepower
btu	=	British Thermal Unit
cfm	=	cubic feet per minute
g	=	grams
gal	=	gallon
gpm	=	gallons per minute
hp	=	horsepower
hr	=	hour
lb	=	pound
in	=	inches
max	=	maximum
m^2	=	square meter
min	=	minute
mm	=	million
MMbtu	=	million btu
MMcf	=	million cubic feet
ppmv	=	parts per million, by volume
ppmw	=	parts per million, by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
scfm	=	standard cubic feet per minute
yr	=	year

APPENDIX B

Engineering Evaluation for Application 24977

FINAL EVALUATION REPORT
Los Esteros Critical Energy Facility, LLC
Facility B3289, Applications 24977 and 25872
800 Thomas Foon Chew Way
San Jose, CA 95134

Background

Los Esteros Critical Energy Facility, LLC, (Los Esteros) has applied for the following:

1. An Authority to Construct a new fire pump and fire pump engine:
   S13, Fire Pump Engine, 282 hp, 2012 or later model year, John Deere Family CJDXL13.5103 or Cummins Family ACEXL0540AAB

   which could, at Los Esteros' option, be installed to replace:
   S5, Fire Pump Engine

2. A Permit to Operate for a turbine to be temporarily installed when maintenance is required at S1, S2, S3, or S4, Turbines:
   S14, Combustion Gas Turbine, General Electric LM 6000 PC Sprint, natural gas fired, 49.4 MW (nominal), 500 MMbtu/hr maximum rated capacity (HHV[1]); abated by Oxidation Catalyst and Selective Catalytic Reduction System.

3. A change in conditions for the following equipment:

   S1 Combustion Gas Turbine #1, General Electric LM 6000 PC Sprint, natural gas fired, 49.4 MW (nominal), 500 MMbtu/hr maximum rated capacity (HHV); abated by A-9 Oxidation Catalyst and A-10 Selective Catalytic Reduction System.

   S2 Combustion Gas Turbine #2, General Electric LM 6000 PC Sprint, natural gas fired, 49.4 MW (nominal), 500 MMbtu/hr maximum rated capacity (HHV); abated by A-11 Oxidation Catalyst and A-12 Selective Catalytic Reduction System.

   S3 Combustion Gas Turbine #3, General Electric LM 6000 PC Sprint, natural gas fired, 49.4 MW (nominal), 500 MMbtu/hr maximum rated capacity (HHV); abated by A-13 Oxidation Catalyst and A-14 Selective Catalytic Reduction System.

   S4 Combustion Gas Turbine #4, General Electric LM 6000 PC Sprint, natural gas fired, 49.4 MW (nominal), 500 MMbtu/hr maximum rated capacity (HHV); abated by A-15 Oxidation Catalyst and A-16 Selective Catalytic Reduction System.

[1] High Heating Value

S7 Heat Recovery Steam Generator #1, equipped with low-NOx Duct Burners, 139 MMbtu/hr maximum rated capacity (HHV); abated by A-9 Oxidation Catalyst and A-10 Selective Catalytic Reduction System.

S8 Heat Recovery Steam Generator #2, equipped with low-NOx Duct Burners, 139 MMbtu/hr maximum rated capacity (HHV); abated by A-11 Oxidation Catalyst and A-12 Selective Catalytic Reduction System.

S9 Heat Recovery Steam Generator #3, equipped with low-NOx Duct Burners, 139 MMbtu/hr maximum rated capacity (HHV); abated by A-13 Oxidation Catalyst and A-14 Selective Catalytic Reduction System.

S10 Heat Recovery Steam Generator #4, equipped with low-NOx Duct Burners, 139 MMbtu/hr maximum rated capacity (HHV); abated by A-15 Oxidation Catalyst and A-16 Selective Catalytic Reduction System.

Calpine is the applicant's parent company. The original proposal in Calpine's letter to the District dated October 25, 2012, is contained in Appendix A of this evaluation.

On March 27, 2013, Calpine submitted an additional proposal. The proposal is to permit an additional turbine that can be used as a substitute for an existing turbine that needs maintenance. The applicant states that the General Electric (GE) LM 6000 turbines are standard turbines that can be switched readily. When a turbine needs maintenance, Calpine would like to substitute another similar turbine in its place until the original turbine is repaired and returns to the installation. GE maintains a number of turbines that can be sent around the country to be used while turbines are being repaired.

The applicant states that the emissions profile of all of the GE LM6000 turbines is similar. Operation with a substitute turbine will not increase emissions at Los Esteros because the substitute turbine will be abated with the existing abatement devices. The applicant has agreed to meet the same limits with the substitute turbine that apply to the existing turbines and that only four turbines may operate at the same time.

This evaluation considers each of Calpine's proposals of October 25, 2012 in the order that they are presented in the letter.

Proposal #1:
The applicant requested that the District allow an unspecified, but equivalent, fire pump engine instead of the Clarke engine proposed in the Authority to Construct for Application 8859.

Response:
The risk screen is specific to the plume for each engine that is evaluated.

Therefore, Calpine subsequently proposed the following two specific engines,

- John Deere Family CJDXL13.5103, 282 hp, 2012 or later model year, or
- Cummins Family ACEXL0540AAB, 282 hp, 2012 or later model year.

The District has evaluated both engines and has found either to be acceptable instead of the Clarke engine.

Proposal #2:
The definition of startup that precedes the numbered condition "parts" states that a startup is over after the lesser of the first 120 minutes of continuous fuel flow to the Gas Turbine after fuel flow is initiated or the period of time from Gas Turbine fuel flow initiation until the Gas Turbine achieves two consecutive CEM data points in compliance with the emission concentration limits of parts 19(a) and 19(c) and is in compliance with the emission limits contained in 19(a) through 19(d). (NOX, NH3, CO, POC)

The applicant has requested a change in the definition so that:

- the CEM data points include 19(b), which is the ammonia limit and monitoring, and,
- the emission limits include the ammonia limit in 19(b), but exclude the POC limit in 19(d).

Response:
NOx and CO are measured reliably during every startup by the NOx and CO CEMs.

POC emissions during startup will only be measured during the initial source tests.

It does not seem likely that the parametric ammonia monitoring system will give an accurate measurement of when the ammonia concentration reaches 5 ppm and remains steady. The 3-hour averaging time for the ammonia limit is incompatible with the maximum amount of time allowed for startup.

Therefore, the District will make a change to exclude POC and NH3 from the definition of startup.

Proposal #3:
Part11: The applicant requested that the District correct part 11 so that it refers to testing to comply with parts 19 and 20, not 10.

Response:
The District will make the correction.

Proposal #4:
Part11: The applicant requested that the District allow 120 days after startup of each turbine/HRSG set to perform the required source tests.

Response:
BAAQMD Regulation 2-1-411 states that:

> "The APCO shall take final action to approve, approve with conditions, or disapprove a permit to operate a facility subject to this rule within 90 days after the initial date of the start-up period of the new or modified source. This time period may be extended upon the written request of the applicant stating the reasons why further start-up time is needed. In no case shall the APCO allow the start-up period to be greater than 180 days."

The source tests could not occur more than 90 days after startup unless the time period has been extended. The request for a change of conditions is a written request for an extension of the startup period, so this change in the permit conditions can be made.

This proposed change is acceptable. However, the results for the initial source test cannot be submitted more than 165 days after startup to allow the permit to be issued within 180 days of startup.

Proposal #5:
Part 11: The applicant requested that the District delete the request for testing of methane and ethane during the source test in part 11.

Response:
The District believes that the testing is useful and is unwilling to change the condition without evidence that there is no unburned natural gas. The condition is for a one-time test and is not an ongoing requirement, so it is not unduly onerous.

Proposal #6:
Parts 19(a) and 19(c): The applicant requested that the District change the emissions averaging for the NOx and CO CEMS from a rolling 60-minute average to a clock-hour average.

Response:
The applicant has withdrawn this proposal.

Proposal #7:
Part 19(b): The applicant requested that the District allow for a District-approved ammonia slip method instead of a molar ratio method.

Response:
The District objected to Calpine's proposed method because it appeared that the NOx inlet rate was not being measured, but rather that a fixed rate was assumed. Calpine has responded that the NOx inlet rate will be measured at each train. The condition has been amended to require recording of the NOx inlet rate and the NOx outlet rate in lb/hr, and the fuel rate in MMbtu/hr in addition to the ammonia injection rate, and the use of a District-approved ammonia slip calculation method.

Proposal #8:
Part 19(d): The applicant requested that the District delete the requirement for a 1-hour rolling average for POC in part 19(d) of the condition.

Response:
The District will amend the permit condition to say "1-hour average" instead of "1-hour rolling average" because there are no POC CEMS and an ongoing rolling average could not be determined. For the purpose of the source tests, compliance will be determined based on three one-half hour runs as required by the source test method.

Proposal #9:
Part 20: The applicant requested that the District correct part 20 of the condition to include S2 and S4, Turbines.

Response:
The District will make this correction.

Proposal #10:
Part 21: The applicant requested that the District delete the definition of shutdown in part 21 of the condition.

Response:
The District agrees, and will delete the definition as requested, because there is a conflicting definition of shutdown at the beginning of the conditions.

Proposal #11:
Part 21: The applicant requested that the District change the wording in the first sentence from:

> "The project owner shall operate the gas turbines so that the duration of a shutdown…"

to:

> "The project owner shall operate the gas turbines so that the duration of operation in Gas Turbine Shutdown Mode…

Response:
The District finds the language to be acceptable and will make the change.

Proposal #12:
Part 22: The applicant requested the following changes:

1. Deletion of the phrase "calendar average" from requirement to calculate daily emissions.
2. A rolling year based on a rolling 12-month period instead of a rolling 8760-hour period.
3. Additional details showing how the emissions of pollutants with monitoring based on annual source tests should be calculated.
4. Use of missing data procedures for missing CEM data instead of "a District-approved alternate calculation method.

Response:

1. The District agrees to delete the phrase "calendar average" because the preceding sentence clearly states that the daily mass limits are based on calendar day.
2. The District agrees that a rolling 12-month period is equivalent to a rolling 8760-hour period and is simpler to administer.
3. The District has amended the condition so that it is clear that the emissions estimates of PM10, SO2, and POC are based on emission rates determined during source tests and the emission rates of NOx and CO are based on CEM data.
4. The District believes that the use of the phrase "District-approved calculation method" is preferable and allows the District to review and approve or disapprove missing data procedures that are used by the facility. As the applicant has stated, it is difficult to envision every situation where the CEMs or parametric monitors are inoperable and determine the right procedure for each ahead of time.

The District has added "parametric monitor" to the sentence about missing data from CEMs.

Proposal #13:
Part 24b: The applicant requested that the District allow the use of natural gas sulfur content data from the utility instead of requiring the applicant to perform monthly sampling and analysis.

Response:
The utility data would be equivalent or better data. The applicant has shown that the utility samples and analyzes the gas on a daily basis. Therefore, utility data will be allowed as long as it is based on actual sampling data. Assurances that the sulfur content is "within specifications" will not be sufficient.

Proposal #14:
Part 25b: The applicant requested that the District amend part 25b of the conditions so that the accuracy and calibration requirements apply only to the ammonia flow meter and not to the injection pressure indicator.

Response:
The District will make the change because the pressure indicator is simply an indicator and does not have a numerical output.

Proposal #15:
Part 25c of the conditions is written so that the CO, NOx, and O2 monitors have to comply with 40 CFR 60, Appendices B and F and 40 CFR 75. The applicant requested that the District amend part 25c of the conditions so that the CO monitors comply with 40 CFR 60, Appendices B and F and the NOx and O2 monitors comply with 40 CFR 75.

Response:
CO is not regulated by 40 CFR 75. For power plants, NOx and O2 are regulated through the Federal Acid Rain Program by 40 CFR 75, Continuous Emission Monitoring. The District agrees that complying with 40 CFR 60 for CO is proper, but that complying with 40 CFR 60 for NOx and O2 in this case would be unnecessarily duplicative. Therefore, the District will make this change.

Proposal #16:
Part 26: The applicant requested that the District amend that permit condition so that instead of annual relative accuracy test audits (RATA), the facility will perform RATAs during every fourth QA operating quarter as defined in 40 CFR 75.2, which states:

> QA operating quarter means a calendar quarter in which there are at least 168 unit operating hours (as defined in this section) or, for a common stack or bypass stack, a calendar quarter in which there are at least 168 stack operating hours (as defined in this section).

Response:
The applicant has stated that the RATAs will at least be performed when a source test is conducted. Since the source tests are conducted annually, the condition will not change.

Proposal #17:
Part 26: The applicant requested deletion of the annual source tests in error.

Response:
The District understands that this request was made in error.

Proposal #18:
Part 26: The applicant requested sixty days, instead of thirty, to submit source test results.

Response:
This proposed change is acceptable.

Proposal #19:
Part 26: The applicant requested that the condition be revised to require the source test to show compliance with the hourly mass emission limits and concentrations in part 19(a) through 19(d) of the condition.

Response:
This proposed change is acceptable.

Proposal #20:
Part 26: The applicant requested that the condition be revised to add the lb/hr limits to parts 26(a) for NOx, 26(c) for CO, and 26(d) for POC.

Response:
This proposed change is acceptable.

Proposal #21:
Part 26: The applicant requested measurement of SO2 in the source test to be based on the sulfur content of the fuel, not an actual measurement.

Response:
The sulfur in the natural gas may not be emitted as SO2, but rather as H2SO4 (sulfuric acid mist). Nonetheless, an assumption that all of the sulfur is emitted as SO2 is a worst-case assumption in the case of the SO2 limit and is acceptable, as long as the sulfuric acid mist is measured directly.

Proposal #22:
Part 27: The applicant requested that the District allow 120 days after startup to conduct the sulfuric acid mist source test.

Response:
This change is acceptable. However, the results for the initial source test cannot be submitted more than 165 days after startup.

Proposal #23:
Part 27: The applicant requested that the district delete the requirement to test for SO2 and SO3.

Response:
The District proposes to amend part 26 to allow the facility to estimate the SO2 from the sulfur content of the natural gas as measured by the utility, so measurement of SO2 would not be required. The EPA method requires measurement of SO3 and H2SO4, although the District acknowledges that a separate determination of SO3 is not possible. The District proposes to amend the condition to say "SO3 evaluated as H2SO4."

Proposal #24:
Part 27: The applicant requested that the District allow annual testing for sulfuric acid mist instead of semi-annual.

Response:
The applicant may re-apply for a reduction in sulfuric acid mist monitoring when the facility has 3 or more source tests for each turbine/HRSG set.

Proposal #25:
Part 27: The applicant requested that the District delete the statement that the applicant could petition the District for a lower source test frequency.

Response:
The applicant has withdrawn this request.

Proposal #26:
Part 32f: The applicant requested that the District change performance testing to quarterly audits (RATAs).

Response:
The District will add the relative accuracy test audits (RATA), noting that the applicant has requested reduced RATA frequency in accordance with 40 CFR 75, Appendix B, Section 2.3.1.2. The District will remove the requirement for performance testing of the CEMs.

Proposal #27:
Part 34g: The applicant requested that the District delete the requirement to record the quarterly fuel analyses.

Response:
Quarterly fuel analyses are required by part 25 of the conditions and, therefore, should be recorded.

Proposal #28:
Part 44: The applicant requested that the District amend the condition so that the projected annual emissions would be calculated after the source test for formaldehyde, acetaldehyde, Specified PAHs, and acrolein.

Response:
The District agrees that this amendment makes the condition clearer and will make the change.

Proposal #29:
Part 45: The applicant requested that the District allow 120 days after startup of each turbine/HRSG set to perform the required source tests.

Response:
This proposed change is acceptable. However, the results for the initial source test cannot be submitted more than 165 days after startup.

Plant Cumulative Increase (tons/year)
The proposed changes in permit conditions will not change the annual emissions and therefore, will not change the cumulative increase.

Toxic Risk Screening
The proposed changes in permit conditions will not change the emissions of toxic air contaminants. Therefore, a new Health Risk Screening Analysis is not required.

Public Notification
Since this plant is not located within 1000 ft. of a school, public notification for the purposes of District Regulation 2-1-412 is not required. However, the change will undergo a public notice process that will be handled by the California Energy Commission (CEC).

Statement of Compliance
A thorough discussion of applicable requirements is contained in the Final Determination of Compliance published on June 2, 2005, which is available upon request, and the Statement of Basis for the significant revision of the Title V permit, issued on June 6,

2012, which is available on the District's website at: http://www.baaqmd.gov/Divisions/Engineering/Title-V-Permit-Programs/Title-V-Permits/Santa-Clara/B3289/Los-Esteros-Critical-Energy-Facility.aspx.

The proposed changes to the permit conditions will not change applicable requirements other than monitoring, recordkeeping, and reporting requirements.

CEQA

The California Energy Commission (CEC) is the state permitting agency for power plants. The CEC has a process that is equivalent to CEQA review. Therefore, the CEC determines the level of review for this change in conditions and for allowing an additional turbine on site to facilitate maintenance of the original turbines.

CEC determined that the changes required public notice and a hearing before approval. Proposed changes were posted on CEC's website on July 22, 2013 at the following address: https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=03-AFC-02C. The proposal was heard at the CEC's Business Meeting of the Energy Commission on August 27, 2013. The Commission approved all of the proposed changes.

Best Available Control Technology (BACT)

The proposed changes in permit conditions will not change the daily or annual emissions. Therefore, the facility is not subject to a new BACT determination.

Offsets

The annual limits will not change. The required offsets have been provided for permit applications 3213 and 8859.

PSD, Prevention of Significant Deterioration

PSD does not apply to this project. PSD applies to a project that causes a "significant" increase in the emissions of air pollutants defined in 40 CFR 51.166(b)(23)(i) and (ii) and these changes to conditions will not result in an increase in emissions.

Title V

The change in conditions consists entirely of changes to monitoring, recordkeeping, and reporting. BAAQMD Regulation 2-6-226.3 defines as a significant revision to the Title V permit:

> "Any significant change or relaxation of any applicable monitoring, reporting or recordkeeping condition."

Although the proposed changes are many, they are not a relaxation or a significant change to the monitoring, reporting, or recordkeeping. The District is not proposing to make changes proposed by the applicant that are a relaxation or significant, such as reducing the frequency of source tests or RATAs.

The fuel sulfur data supplied by the utility will be of equal quality to analyses by the facility, so use of utility data is not a relaxation.

Use of fuel sulfur data to calculate SO2 is more conservative than testing. Therefore, the change to part 26 of the conditions is not a relaxation.

Since the changes in conditions are not considered significant revisions, they are defined as minor revisions. Changes to the ammonia monitoring are not federally enforceable, so any changes to ammonia monitoring would be administrative amendments, as defined by BAAQMD Regulation 2-6-201.

The facility can act on any minor revisions as soon as they are approved in accordance with BAAQMD Regulation 2-6-406. However, the District cannot approve the minor revisions until after CEC approval.

CEC Requirements

The California Energy Commission is the primary permitting authority for power plants of this size in California. The District submitted an analysis of the proposed changes to CEC on May 10, 2013. Proposed changes were posted on CEC's website on July 22, 2013 at the following address: https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=03-AFC-02C. The proposal was heard at the CEC's Business Meeting of the Energy Commission on August 27, 2013. The Commission approved all of the proposed changes.

PERMIT CONDITIONS

Condition # 23688

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.
MM BTU:	million British thermal units
Gas Turbine Start-up Mode:	The lesser of the first 120 minutes of continuous fuel flow to the gas turbine after fuel flow is initiated or the period of time from gas turbine fuel flow initiation until the gas turbine achieves two consecutive CEM data points in compliance with the emission concentration limits of ~~conditions~~ subparts 19(a) and 19(c) and is in compliance with the emission limits contained in subparts 19(a) ~~through~~ and 19(~~d~~c).
Gas Turbine Shutdown Mode:	The lesser of the 30 minute period immediately prior to the termination of fuel flow to the gas turbine or the period of time from non-compliance with any requirement listed in ~~Conditions~~ subparts 19(a) through 19(d) until termination of fuel flow to the Gas Turbine
Corrected Concentration:	The concentration of any pollutant (generally NO_x, CO or NH_3) corrected to a standard stack gas oxygen concentration. For a gas turbine 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 start-up has been 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 commissioning period 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 carbon Compounds (POCs):	Any compound of carbon, excluding methane, ethane, monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate

Equipment Description:

This Authority to Construct is issued and is valid for this equipment only while it is in the configuration set forth in the following description:

1. Four Combined-Cycle Gas Turbine Generator Power Trains consisting of:
    a. ~~1. Combined-Cycle~~Combustion Gas Turbine, General Electric LM6000PC, Maximum Heat Input 500 MMBTU/hr (HHV), 49.4 MW (nominal), Natural Gas-Fired
    b. ~~2.~~ Heat Recovery Steam Generator, equipped with low-NOx duct burners, 139 MM BTU/hour, N~~n~~atural G~~g~~as-F ~~f~~ired
    c. ~~3.~~ Selective Catalytic Reduction (SCR) NOx Control System.
    d. ~~4.~~ Ammonia Injection System.
    (including the ammonia storage tank and control system)
    e. ~~5.~~ Oxidation Catalyst (OC) System.
    f. ~~6.~~ Continuous emission monitoring system (CEMS) designed to continuously record the measured gaseous concentrations, and calculate and continuously monitor and record the NOx and CO concentrations in

ppmvd corrected to 15% oxygen on a dry basis. The CEM shall also calculate, using District approved methods, and log any mass limits required by these conditions.

2. Clarke JW6H-UF40 fire pump and fire pump engine or, at the owner/operator's option, either a 2012 or later model year John Deere Family CJDXL13.5103 or Cummins Family ACEXL0540AAB fire pump and fire pump engine, which Los Esteros may construct at its option to replace existing S-5, Fire Pump Engine.

3. Six Cell Cooling Tower, 73,000 gallons per minute with drift eliminator of 0.0005% removal efficiency.

4. One spare Gas Turbine, General Electric LM6000PC, Maximum Heat Input 500 MMBTU/hr (HHV), 49.4 MW (nominal), Natural Gas-Fired

Permit Conditions:

Conditions for the Commissioning Period:

1. The owner/operator of the Los Esteros Critical Energy Facility shall minimize the emissions of carbon monoxide and nitrogen oxides from S-1, S-2, S-3 and S-4 Gas Turbines and S-7, S-8, S-9, and S-10 Heat Recovery Steam Generators to the maximum extent possible during the commissioning period. Parts 1 through 11 shall only apply during the commissioning period as defined above. Unless noted, parts 12 through 47 shall only apply after the commissioning period has ended. (basis: cumulative increase)

2. At the earliest feasible opportunity in accordance with the recommendations of the equipment manufacturers and the construction contractor, the owner/operator shall tune the S-1, S-2, S-3 and S-4 Gas Turbine combustors to minimize the emissions of carbon monoxide and nitrogen oxides. (basis: cumulative increase)

3. At the earliest feasible opportunity and in accordance with the recommendations of the equipment manufacturers and the construction contractor, the owner/operator shall install, adjust and operate the SCR Systems (A-10, A-12, A-14 & A-16) and OC Systems (A-9, A-11, A-13 & A-15) to minimize the emissions of nitrogen oxides and carbon monoxide from S-1, S-2, S-3 and S-4 Gas Turbines and S-7, S-8, S-9, and S-10 Heat Recovery Steam Generators. (basis: cumulative increase)

4. Coincident with the steady-state operation of SCR Systems (A-10, A-12, A-14 & A-16) and OC Systems (A-9, A-11, A-13 & A-15) pursuant to part 3, the owner/operator shall operate the facility in such a manner that the Gas Turbines (S-1, S-2, S-3 and S-4) comply with the NOx and CO emission limitations specified in parts 19a and 19c. (basis: BACT, offsets)

5. The owner/operator of the Los Esteros Critical Energy Facility shall submit a plan to the District Permit Services Division at least two weeks prior to first firing of S-1, S-2, S-3 & S-4 Gas Turbines and/or S-7, S-8, S-9, & S-10 HRSGs describing the procedures to be followed during the commissioning of the turbines in the combined-cycle configuration. The plan shall include a description of each commissioning activity, the anticipated duration of each activity in hours, and the purpose of the activity. The activities described shall include, but not be limited to, the tuning of the water injection, the installation and operation of the required emission control systems, the installation, calibration, and testing of the CO and NOx continuous emission monitors, and any activities requiring the firing of the Gas Turbines (S-1, S-2, S-3 and S-4) without abatement by their respective SCR Systems. The Gas Turbines (S-1, S-2, S-3 and S-4) shall be fired in combined cycle mode no sooner than fourteen days after the District receives the commissioning plan. (basis: cumulative increase)

6. During the commissioning period, the owner/operator of the Los Esteros Critical Energy Facility shall demonstrate compliance with parts 8 through 10 through the use of properly operated and maintained continuous emission monitors and data recorders for the following parameters:

   a. firing hours

   b. fuel flow rates

   c. stack gas nitrogen oxide emission concentrations,

   d. stack gas carbon monoxide emission concentrations

   e. stack gas oxygen concentrations.

   The monitored parameters shall be recorded at least once every 15 minutes (excluding normal calibration periods or when the monitored source is not in operation) for the S-1, S-2, S-3 and S-4 Gas Turbines and S-7, S-8, S-9, and S-10 Heat Recovery Steam Generators. The owner/operator shall use District-approved methods to calculate heat input rates, nitrogen dioxide mass emission rates, carbon monoxide mass emission rates, and NO_x and CO emission concentrations, summarized for each clock hour and each calendar day. All records shall be retained on site for at least 5 years from the date of entry and made available to District personnel upon request. If necessary to ensure that accurate data is collected at all times, the owner/operator shall install dual span emission monitors. (basis: cumulative increase)

7. The owner/operator shall install, calibrate and make operational the District-approved continuous monitors specified in part 6 prior to first firing of each turbine (S-1, S-2, S-3 and S-4 Gas Turbines) and HRSG (S-7, S-8, S-9, and S-10 Heat Recovery Steam Generators). After first firing of the turbine, the owner/operator shall adjust the detection range of these continuous emission monitors as necessary to accurately measure the resulting range of CO and NOx emission concentrations. The type, specifications, and location of these monitors shall be subject to District review and approval. If necessary to ensure accurate data is collected at all times, the

owner/operator shall install dual-span monitors. (basis: BAAQMD 9-9-501, BACT, offsets)

8. The owner/operator shall not operate the facility such that the number of firing hours of S-1, S-2, S-3 and S-4 Gas Turbines and/or S-7, S-8, S-9, and S-10 Heat Recovery Steam Generators without abatement by SCR or OC Systems exceeds 250 hours for each power train during the commissioning period. Such operation of the S-1, S-2, S-3 and S-4 Gas Turbines without abatement shall be limited to discrete commissioning activities that can only be properly executed without the SCR or OC system in place. Upon completion of these activities, the owner/operator shall provide written notice to the District Permit Services and Enforcement Divisions and the unused balance of the 250 firing hours without abatement shall expire. (basis: offsets)

9. The total mass emissions of nitrogen oxides, carbon monoxide, precursor organic compounds, PM_{10}, and sulfur dioxide that are emitted by the S-1, S-2, S-3 and S-4 Gas Turbines and S-7, S-8, S-9, and S-10 Heat Recovery Steam Generators during the commissioning period shall accrue towards the consecutive twelve-month emission limitations specified in part 22. (basis: offsets)

10. The owner/operator shall not operate the facility such that the pollutant mass emissions from each turbine (S-1, S-2, S-3 and S-4 Gas Turbines) and corresponding HRSG (S-7, S-8, S-9, and S-10 Heat Recovery Steam Generators) exceed the following limits during the commissioning period. These emission limits shall include emissions resulting from the start-up and shutdown of the S-1, S-2, S-3 and S-4 Gas Turbines.

		Without Controls		With Controls	
a.	NO_x (as NO_2)	1464 lb/day	102 lb/hr	1464 lb/day	61 lb/hr
b.	CO	1056 lb/day	88 lb/hr	984 lb/day	41 lb/hr
c.	POC (as CH_4)	288 lb/day		114 lb/day	

(basis: cumulative increase)

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~~20 . 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 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 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 60 days of the source testing date. These results can be used to satisfy applicable source testing requirements in part 26 below. (basis: offsets)

Conditions for Operation:

12. Consistency with Analyses: Operation of this equipment shall be conducted in accordance with all information submitted with the application (and supplements thereof) and the analyses under which this permit is issued unless otherwise noted below. (Basis: BAAQMD 2-1-403)

13. Conflicts Between Conditions: In the event that any part herein is determined to be in conflict with any other part contained herein, then, if principles of law do not provide to the contrary, the part most protective of air quality and public health and safety shall prevail to the extent feasible. (Basis: BAAQMD 1-102)

14. Reimbursement of Costs: All reasonable expenses, as set forth in the District's rules or regulations, incurred by the District for all activities that follow the issuance of this permit, including but not limited to permit condition implementation, compliance verification and emergency response, directly and necessarily related to enforcement of the permit shall be reimbursed by the owner/operator as required by the District's rules or regulations. (Basis: BAAQMD 2-1-303)

15. Access to Records and Facilities: As to any part that requires for its effective enforcement the inspection of records or facilities by representatives of the District, the Air Resources Board (ARB), the U.S. Environmental Protection Agency (U.S. EPA), or the California Energy Commission (CEC), the owner/operator shall make such records available or provide access to such facilities upon notice from representatives of the District, ARB, U.S. EPA, or CEC. Access shall mean access consistent with California Health and Safety Code Section 41510 and Clean Air Act Section 114A. (Basis: BAAQMD 1-440, 1-441)

16. Notification of Commencement of Operation: The owner/operator shall notify the District of the date of anticipated commencement of turbine operation not less than 10 days prior to such date. Temporary operations under this permit are granted consistent with the District's rules and regulations. (Basis: BAAQMD 2-1-302)

17. Operations: The owner/operator shall insure that the gas turbines, HRSGs, emissions controls, CEMS, and associated equipment are properly maintained and kept in good operating condition at all times. (Basis: BAAQMD 2-1-307)

18. Visible Emissions: The owner/operator shall insure that no air contaminant is discharged from the LECEF into the atmosphere for a period or periods aggregating more than three minutes in any one hour, which is as dark as or darker than Ringelmann 1 or equivalent 20% opacity. (Basis: BAAQMD 6-1-301; SIP 6-301)

19. Emissions Limits: The owner/operator 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 as defined in this permit; 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 NOx 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 shutdown 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 NOx 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 NH_3/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 shutdown 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 shutdown 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)

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: BACT, Cumulative increase)

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

21. Turbine Shutdown: The project owner shall operate the gas turbines so that the duration of operation in Gas Turbine Shutdown Mode 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)

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 (lb/day)	All 4 Turbine/HRSG Power Trains (lb/day)	All 4 Turbine/HRSG Power Trains (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, recordkeeping, 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 inoperation 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 an emission factor determined by source testing of the turbine/HRSG conducted in accordance with part 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. 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, recordkeeping)

23. Sulfuric Acid Mist Limit: The project owner shall operate the LECEF so that the sulfuric acid mist emissions (SAM) from S-1, S-2, S-3, S-4, S-7, S-8, S-9, and S-10 combined do not exceed 7 tons totaled over any consecutive four quarters. (Basis: Regulation 2-2-306)

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 owner/operator 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 ~~Paragraph~~ part 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. 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. (Basis: BACT for SO_2 and PM_{10}.)

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

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 O2 shall comply with the requirements of 40 CFR Part 75~~, and~~ All CO, NOx, and O2 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).

26. a. ~~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 CEM~~S~~ in accordance with 40 CFR Part 60, Appendix B, Performance Specifications, and on the NOx and O2 CEMs in accordance with 40 CFR 75. ~~and~~

b. Source Testing: 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 test 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 PM_{10} 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 ~~annual~~ periodic source tests shall be conducted to show compliance with parts 19(a), 19(b), 19(c) and 19(d), and shall include those parameters specified in the approved test protocol, and shall at a minimum include the following:

~~e.~~a. NOx– ppmvd at 15% O2, ~~and~~ lb/MM~~-~~btu and lb/hr (as NO2)

~~f.~~b. Ammonia – ppmvd at 15% O2 (Exhaust)

~~g.~~c. CO – ppmvd at 15% O2, ~~and~~ lb/MM-btu, and lb/hr (Exhaust)

~~h.~~d. POC – ppmvd at 15% O2, ~~and~~ lb/MM-btu, and lb/hr (Exhaust)

~~i.~~e. PM_{10} – lb/hr (Exhaust)

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

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

~~l.~~h. Turbine load in megawatts

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

~~n.~~j. Exhaust gas temperature (°F)

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

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

(Basis: source test requirements & monitoring)

~~26.~~27. Within ~~60~~120 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 part 23. The results of the initial source test must be submitted within 165 days of startup. Subsequent source tests must be submitted within 60 days of the date of the source test. The owner/operator shall test for ~~(as a minimum) SO_2,~~ SO_3 evaluated as H2SO4 and sulfuric acid mist (SAM). After acquiring one year of source test data on these units, the owner/operator 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)

~~27.~~28. The owner/operator shall prepare a written quality assurance program must be established in accordance with 40 CFR Part 75, Appendix B and 40 CFR Part 60, Appendix F. (Basis: continuous emission monitoring)

29. deleted

30. The owner/operator shall notify the District of any breakdown condition consistent with the District's breakdown regulations. (Basis: Regulation 1-208)

31. The owner/operator shall notify the District in writing in a timeframe consistent with the District's breakdown regulations following the correction of any breakdown condition. The breakdown condition shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the actions taken to restore normal operations. (Basis: Regulation 1-208)

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)

33. The owner/operator shall maintain all records required by this permit for a minimum period of five years from the date of entry and shall make such records readily available for District inspection upon request. (Basis: record keeping)

34. Reporting: The owner/operator shall submit to the District a written report for each calendar quarter, within 30 days of the end of the quarter, which shall include all of the following items:
    a. Daily and quarterly fuel use and corresponding heat input rates
    b. Daily and quarterly mass emission rates for all criteria pollutants during normal operations and during other periods (startup/shutdown, breakdowns)
    c. Time intervals, date, and magnitude of excess emissions
    d. Nature and cause of the excess emission, and corrective actions taken

e. Time and date of each period during which the CEM was inoperative, including zero and span checks, and the nature of system repairs and adjustments
f. A negative declaration when no excess emissions occurred
g. Results of quarterly fuel analyses for HHV and total sulfur content.

(Basis: recordkeeping & reporting)

35. Emission Offsets: The project owner shall provide 23.35 tons of valid NOx emission reduction credits prior to the issuance of the Authority to Construct. The owner/operator shall deliver the ERC certificates to the District Engineering Division at least ten days prior to the issuance of the authority to construct. (Basis: Offsets)

36. District Operating Permit: The owner/operator shall apply for and obtain all required operating permits from the District in accordance with the requirements of the District's rules and regulations. (Basis: Regulations 2-2 & 2-6)

37. Deleted

38. Deleted June 22, 2004.

39. The project owner shall not operate S-5 Fire Pump Diesel Engine more than 50 hours per year for reliability-related activities. (Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)(3)or (e)(2)(B)(3), offsets).

40. The project owner shall operate S-5 Fire Pump Diesel Engine only for the following purposes: to mitigate emergency conditions, for emission testing to demonstrate compliance with a District, state or Federal emission limit, or for reliability-related activities (maintenance and other testing, but excluding emission testing). Operating hours while mitigating emergency conditions or while emission testing to show compliance with District, state or Federal emission limits is not limited. (Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection 9e)(2)(A)(3) or (e)(2)(B)(3)).

41. The project owner shall operate S-5 Fire Pump Diesel Engine only when a non-resettable totalizing meter (with a minimum display capability of 9,999 hours) that measures the hours of operation for the engine is installed, operated and properly maintained. (Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(4)(G)(1), cumulative increase).

42. Records: The project owner shall maintain the following monthly records in a District-approved log for at least 60 months from the date of entry. Log entries shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request.
    a. Hours of operation for reliability-related activities (maintenance and testing).

b. Hours of operation for emission testing to show compliance with emission limits.
c. Hours of operation (emergency).
d. For each emergency, the nature of the emergency condition.
e. Fuel usage for each engine(s). (Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(4)(I), cumulative increase)

*43. The project owner shall operate the facility such that maximum calculated annual toxic air contaminant emissions (pursuant to part 45) from the gas turbines and HRSGs combined (S-1, S-2, S-3, S-4, S-7, S-8, S-9, and S-10) do not exceed the following limits:

6490 pounds of formaldehyde per year
3000 pounds of acetaldehyde per year
3.2 pounds of Specified polycyclic aromatic hydrocarbons (PAHs) per year
65.3 pounds of acrolein per year

unless the following requirement is satisfied:

The project owner shall perform a health risk assessment using the emission rates determined by source test and the most current Bay Area Air Quality Management District approved procedures and unit risk factors in effect at the time of the analysis. This analysis shall be submitted to the District and the CEC CPM within 60 days of the source test date. The project owner may request that the District and CEC CPM revise the carcinogenic compound emission limits specified above. If the project owner demonstrates to the satisfaction of the APCO that these revised emission limits will result in a cancer risk of not more than 1.0 in one million, the District and CEC CPM may, at their discretion, adjust the carcinogenic compound emission limits listed above. (Basis: Regulation 2-5)

44. To demonstrate compliance with part 43, after each source test performed pursuant to part 43, the project owner shall calculate and record ~~on an annual basis~~ the maximum projected annual emissions for the compounds specified in part 43 using the maximum heat input of 18,215,000 MM BTU/year and the highest emission factor (pound of pollutant per MM BTU) 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: Regulation 2-5)

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 44. The results of the initial source test must be submitted within 1~~2~~65 days of startup. Subsequent source tests 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 45 are less than the BAAQMD Toxic Risk Management Policy trigger levels shown below, then the owner/operator 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)

46. The project owner shall properly install and maintain the cooling towers to minimize drift losses. The owner/operator shall equip the cooling towers with high-efficiency mist eliminators with a maximum guaranteed drift rate of 0.0005%. The maximum total dissolved solids (TDS) measured at the base of the cooling towers or at the point of return to the wastewater facility shall not be higher than 6,000 ppmw (mg/l). The project owner shall sample and test the cooling tower water at least once per day to verify compliance with this TDS limit. (Basis: cumulative increase; Regulation 2-1-319)

47. The owner/operator shall perform a visual inspection of the cooling tower drift eliminators at least once per calendar year, and repair or replace any drift eliminator components which are broken or missing. Prior to the initial operation of the combined-cycle Los Esteros Critical Energy Facility, the owner/operator shall have the cooling tower vendor's field representative inspect the cooling tower drift eliminators and certify that the installation was performed in accordance with the manufacturer's design and specifications. Within 60 days of the initial operation of the cooling tower, the owner/operator shall perform an initial performance source test to determine the PM_{10} emission rate from the cooling tower to verify compliance with the vendor-guaranteed drift rate specified in part 46. The CPM may, in years 5 and 15 of cooling tower operation, require the owner/operator to perform source tests to verify continued compliance with the vendor-guaranteed drift rate specified in part 46. (Basis: cumulative increase; Regulation 2-1-319)

48. S-14 is a GE LM6000 turbine that is equivalent to the existing gas turbines and is used as a substitute when 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 (S1/S7, S2/S8, S3/S9, and S4/S10). The owner/operator shall ensure that the power train operating with S14 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)

RECOMMENDATION

It is recommended that a change in conditions for the following equipment be granted for the following sources:

S-1 Combustion Turbine Generator #1, General Electric LM 6000 PC Sprint, natural gas fired, 49.4 MW (nominal), 500 MMbtu/hr maximum rated capacity (HHV); abated by A-9 Oxidation Catalyst and A-10 Selective Catalytic Reduction System.

S-2 Combustion Turbine Generator #2, General Electric LM 6000 PC Sprint, natural gas fired, 49.4 MW (nominal), 500 MMbtu/hr maximum rated capacity (HHV); abated by A-11 Oxidation Catalyst and A-12 Selective Catalytic Reduction System.

S-3 Combustion Turbine Generator #3, General Electric LM 6000 PC Sprint, natural gas fired, 49.4 MW (nominal), 500 MMbtu/hr maximum rated capacity (HHV); abated by A-13 Oxidation Catalyst and A-14 Selective Catalytic Reduction System.

S-4 Combustion Gas Turbine #4, General Electric LM 6000 PC Sprint, natural gas fired, 49.4 MW (nominal), 500 MMbtu/hr maximum rated capacity (HHV); abated by A-15 Oxidation Catalyst and A-16 Selective Catalytic Reduction System.

S7 Heat Recovery Steam Generator #1, equipped with low-NOx Duct Burners, 139 MMbtu/hr maximum rated capacity (HHV); abated by A-9 Oxidation Catalyst and A-10 Selective Catalytic Reduction System.

S8 Heat Recovery Steam Generator #2, equipped with low-NOx Duct Burners, 139 MMbtu/hr maximum rated capacity (HHV); abated by A-11 Oxidation Catalyst and A-12 Selective Catalytic Reduction System.

S9 Heat Recovery Steam Generator #3, equipped with low-NOx Duct Burners, 139 MMbtu/hr maximum rated capacity (HHV); abated by A-13 Oxidation Catalyst and A-14 Selective Catalytic Reduction System.

S10 Heat Recovery Steam Generator #4, equipped with low-NOx Duct Burners, 139 MMbtu/hr maximum rated capacity (HHV); abated by A-15 Oxidation Catalyst and A-16 Selective Catalytic Reduction System.

that an Authority to Construct be granted to the following source:

> S13, Fire Pump Engine, 282 hp, 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 S5, Fire Pump Engine.

and that a Permit to Operate be granted to the following source:

> S14, Combustion Gas Turbine, General Electric LM 6000 PC Sprint, natural gas fired, 49.4 MW (nominal), 500 MMbtu/hr maximum rated capacity (HHV[2]); abated by Oxidation Catalyst and Selective Catalytic Reduction System.

By:_____ Date:_____

Brenda Cabral
Air Quality Engineering Supervisor

[2] High Heating Value

APPENDIX C

Enforcement Agreement between BAAQMD and Los Esteros November 25, 2014

Los Esteros Critical Energy Facility, LLC-BAAQMD
Enforcement Agreement

This Enforcement Agreement ("Agreement") is entered into effective this __ day of November, 2014, between Los Esteros Critical Energy Facility, LLC ("Los Esteros Critical Energy Facility") and the Bay Area Air Quality Management District ("BAAQMD" or "District"), hereinafter collectively referred to as the "Parties."

RECITALS

WHEREAS, the District is the regional agency with primary responsibility for the control of air pollution from stationary sources in the San Francisco Bay Area Air Basin;

WHEREAS, Los Esteros Critical Energy Facility owns and operates an electric power generating facility within the San Francisco Bay Area Air Basin located at 800 Thomas Foon Chew Way, San Jose, CA, 95134 (District Facility No. 13289) (referred to hereinafter as the "Facility");

WHEREAS, the permit issued by the District to Los Esteros Critical Energy Facility for the Facility requires Los Esteros Critical Energy Facility to comply with an hourly carbon monoxide ("CO") limit of 2 parts per million volumetric dry ("ppmvd") @ 15 percent ("%") oxygen ("O_2") over a one-hour averaging period ("1-hour average") (which corresponds to a CO hourly limit of 2.85 pounds per hour ("lb/hr") (1-hour average)) and daily CO limits of 97 pounds per day ("lb/day") for each turbine/heat recovery steam generator ("HRSG") train and 388.0 lb/day for all four turbine/HRSG trains;

WHEREAS, the permit issued by the District to Los Esteros Critical Energy Facility for the Facility requires that the maximum allowable molar ratio be determined during any required source test and then not be exceeded until reestablished through another source test;

WHEREAS, Los Esteros Critical Energy Facility completed source testing on July 22-25, 2014; and, based on the test results, new "bias factors" were established for each of the units, which must be used to calculate emissions of ammonia ("NH_3") slip pursuant to the permit;

WHEREAS, since application of the new bias factors, Los Esteros Critical Energy Facility asserts that it has needed to reduce rates of ammonia injection to avoid exceeding its calculated NH_3 limit, requiring Los Esteros Critical Energy Facility to increase the rates of water injection to avoid exceeding the NOx limit, which, in turn, results in an increase in emissions of CO;

WHEREAS, Los Esteros Critical Energy Facility asserts that it cannot maintain compliance with the CO emission limits in the permit for the Facility at the increased water injection rate ("CO emissions problem");

WHEREAS, Los Esteros Critical Energy Facility asserts that increasing water injection and reducing ammonia injection to maintain compliance with the NOx and ammonia limits

reduces emissions of NOx and NH_3, the former of which is a precursor of ozone and both of which are precursors of $PM_{2.5}$ (two pollutants for which the Bay Area is currently designated as nonattainment for the National Ambient Air Quality Standards);

WHEREAS, Los Esteros Critical Energy Facility operates the Facility pursuant to a long-term power purchase agreement ("PPA") with Pacific Gas & Electric Company ("PG&E");

WHEREAS, Los Esteros Critical Energy Facility asserts that, under the terms of the PPA, if the Facility were to not operate when called upon by PG&E, Los Esteros Critical Energy Facility would suffer significant financial penalties and economic harm;

WHEREAS, Los Esteros Critical Energy Facility applied for an emergency variance from the District's Hearing Board to address the circumstances described above;

WHEREAS, the District's Hearing Board granted the emergency variance for good cause shown, allowing Los Esteros Critical Energy Facility to operate the Facility when required to generate power at the request of PG&E, so long as emissions of CO did not exceed 4.0 ppmvd @ 15% O_2 and Los Esteros Critical Energy Facility continued both water and ammonia injection at rates that would assure compliance with that limit;

WHEREAS, Los Esteros Critical Energy Facility also submitted applications for interim and regular variances addressing the circumstances described above, which applications are scheduled to be heard by the District's Hearing Board on December 4 and December 11, 2014, respectively;

WHEREAS, the District does not oppose the requested variances;

WHEREAS, Los Esteros Critical Energy Facility seeks to enter into an agreement with the District to address the CO emissions problem described above as expeditiously as possible and without the need for further proceedings;

WHEREAS, Los Esteros Critical Energy Facility asserts that it is working diligently to identify and implement corrective measures that will ensure prompt compliance with the CO emission limits in the permit for the Facility, which corrective measures may involve relocation of the CO catalysts to a higher temperature zone of the HRSGs and/or other measures to be determined;

WHEREAS, Los Esteros Critical Energy Facility has agreed to take mitigating measures to limit operation of the Facility, as set forth in this Agreement;

WHEREAS, Los Esteros Critical Energy Facility has agreed to pay monetary penalties, described herein, for failure to comply with the CO emission limits in the permit;

WHEREAS, the District does not believe that it would be in the public interest to force the Facility to cease operations provided Los Esteros Critical Energy Facility adheres to an expeditious schedule to achieve compliance by no later than November 1, 2015, as provided in this Agreement;

WHEREAS, under these circumstances, allowing Los Esteros Critical Energy Facility to operate the Facility, subject to the mitigating measures set forth herein and for a limited period of time through no later than November 1, 2015, is not unreasonable and is justified while Los Esteros Critical Energy Facility implements corrective actions to ensure compliance with its emission limits;

WHEREAS, the District is vested with:

(i) enforcement authority for the air pollution control program in accordance with California Health & Safety Code Sections 40001, 40701, 40752, 42400-42421, and 42451-42454; and

(ii) discretion over the application of this enforcement authority given the facts and circumstances of each enforcement matter,

and has determined that, in view of the circumstances and assertions of Los Esteros Critical Energy Facility recited above, it will not take civil or criminal penalty action except as provided in this Agreement against Los Esteros Critical Energy Facility for temporarily failing to adhere to its CO limits of 2.0 ppmvd @ 15% O_2 (1-hour average), 2.85 lb/hr (1-hour average), 97.0 lb/day per turbine/HRSG train and 388.0 lb/day for all four turbine/HRSG trains, as long as Los Esteros Critical Energy Facility strictly adheres to the conditions set forth in this Agreement.

AGREEMENT

NOW, THEREFORE, based on the foregoing recitals, and in consideration of the mutual promises and covenants contained in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. Until the date described by Paragraph 5, Los Esteros Critical Energy Facility shall maintain compliance with CO limits of 4.0 ppmvd @ 15% O_2 (1-hour average) and 5.7 lb/hr (1-hour average) (except during periods of start-up as defined by the permit), in lieu of the respective CO limits of 2.0 ppmvd @ 15% O_2 (1-hour average) and 2.85 lb/hr (1-hour average) imposed by Condition No. 23688, Part 19.c of the Facility's permit.

2. Until the date described by Paragraph 5, Los Esteros Critical Energy Facility shall only operate the Facility when required to generate electricity at the request of PG&E and to perform performance or other testing under the terms of the PPA and as may be needed to assure safe and reliable operation of the Facility's equipment.

3. Los Esteros Critical Energy Facility shall monitor its emissions of CO throughout the period addressed by Paragraphs 1 and 2 and shall report all periods of noncompliance with the CO limits of 2.0 ppmvd @ 15% O_2 limit (1-hour average) and/or 2.85 lb/hr (1-hour average) and/or the daily CO limits of 97.0 lb/day for each turbine/HRSG train and/or 388.0 lb/day for all four turbine/HRSG trains in accordance with the requirements of the Facility's permit and District rules.

4. By December 31, 2014 and on a monthly basis thereafter, Los Esteros Critical Energy Facility shall submit a report to the District by email at compliance@baaqmd.gov, summarizing the progress made towards achievement of a solution to the CO emissions problem.

5. Within three (3) business days of achieving compliance with the CO limitations imposed by Condition No. 23688, Parts 19.c and 22 of the Facility's permit, Los Esteros Critical Energy Facility shall notify the District in writing of the date when compliance was achieved, which date shall be no later than November 1, 2015. Upon the occurrence of such date, Paragraphs 1 through 4 of this Agreement shall no longer be of any effect and the applicable requirements shall thereafter be those specified in the Facility's permit and District regulations.

6. Los Esteros Critical Energy Facility agrees to pay to the District a civil penalty of **Twenty-Five Thousand Dollars ($25,000.00)** as a condition of this Agreement. Within 30 days of execution of this Agreement, Los Esteros Critical Energy Facility shall submit a check for $25,000.00 which shall be payable to "Bay Area Air Quality Management District", to:

Brian C. Bunger, Esq.
District Counsel
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

7. Los Esteros Critical Energy Facility agrees to pay to the District an additional amount based on the excess emissions of CO that actually occur and are reported pursuant to Paragraph 3. Within 30 days of the conclusion of each month during which excess emissions occur and are reported pursuant to Paragraph 3, Los Esteros Critical Energy Facility shall submit a report to the District summarizing the excess emissions of CO during that month, accompanied by a check, which shall be payable to "Bay Area Air Quality Management District", in an amount equivalent to the excess emissions occurring during such month, multiplied by the excess emission fee stated by Table I to Schedule A, Attachment I of District Regulation 3. The report and check shall be mailed to the same address as provided by Paragraph 6.

8. Except as expressly set forth herein, the District agrees that it shall not issue a Notice of Violation, seek civil or criminal penalties, or otherwise take enforcement action against Los Esteros Critical Energy Facility for failure to adhere to the CO limits in Part 19.c and Part 22 of Condition No. 23688 of the permit for the Facility, as long as CO emissions do not exceed 4.0 ppmvd @ 15% O_2 (1-hour average) and 5.7 lb/hour (1-hour average) (except during start-up, as defined by the permit), and Los Esteros Critical Energy Facility otherwise remains in compliance with all other requirements of the permit and the requirements of this Agreement.

9. The District reserves the right, in its discretion, to take any and all enforcement action for any violation of any other permit or regulatory requirement not covered by Paragraph 8 above, and for any violation of any requirement of this Agreement, including but not limited to any violation of the CO limits in Part 19.c and Part 22 of Condition No. 23688 of the permit for the Facility that may occur after the date described by Paragraph 5. Los Esteros Critical Energy

Facility reserves the right to contest and present evidence regarding the allegations made by the District concerning any such alleged violation of any other permit or regulatory requirement or requirement of this Agreement as specified in this Paragraph 9.

10. The District reserves the right to rely upon any failure by Los Esteros Critical Energy Facility to adhere to the CO limits in Part 19.c and Part 22 of Condition No. 23688 of the permit for the Facility regardless of when such failure occurs, and may offer proof thereof in connection with any administrative or judicial proceeding, for the purpose of showing a history of violation. Los Esteros Critical Energy Facility reserves the right to contest any such offer of proof and to present evidence in response to any alleged failure to adhere to such CO limits asserted by the District pursuant to this Paragraph 10.

11. Nothing in this Agreement excuses Los Esteros Critical Energy Facility from compliance with any other requirements applicable under any District-issued permit or District regulation except as specified in Paragraph 8 above.

12. This Agreement is binding upon Los Esteros Critical Energy Facility and the District only with respect to the matters specifically addressed and does not otherwise bind Los Esteros Critical Energy Facility and/or the District.

13. The terms of this Agreement shall inure to the benefit of and be binding upon the Parties and their respective predecessors, successors, subsidiaries, partners, limited partners, agents, principals, and assigns.

14. If any provision of this Agreement or the application of this Agreement to either Los Esteros Critical Energy Facility or the District is held by any judicial authority to be invalid, the application of such provision to the other Party and the remainder of this Agreement shall remain in force and shall not be affected thereby, unless such holding materially changes the terms of this Agreement.

15. Each of the undersigned represents and warrants that he or she has read and understands and has full and complete lawful authority to grant, bargain, convey, and undertake the rights and duties contained in this Agreement, and that he or she has full and complete lawful authority to bind any respective principals, successors, subsidiaries, partners, limited partners, agents and assigns to this Agreement. Each of the undersigned understands and agrees that this representation and warranty is a material term of this Agreement, without which it would not have been executed.

16. Los Esteros Critical Energy Facility and the District each hereby affirms and acknowledges that it has read this Agreement, that it knows and understands the terms of this Agreement, and that it has signed this Agreement voluntarily. The Parties have had the opportunity to consult with their respective attorneys and any other consultant each deemed appropriate prior to executing this Agreement.

17. This Agreement shall be governed by and construed in accordance with the laws of the State of California.

18. The mutual obligations and undertakings of Los Esteros Critical Energy Facility, on the one hand, and the District, on the other hand, expressly set forth in this Agreement are the sole and only consideration of this Agreement and supersede and replace all prior negotiations and proposed agreements between Los Esteros Critical Energy Facility and the District, written or oral, on the specific matters addressed in this Agreement. Los Esteros Critical Energy Facility and the District each acknowledges that no other party, nor the agents nor attorneys of any other party, has made any promise, representation or warranty whatsoever (express or implied), not contained herein, to induce the execution of this Agreement. This Agreement constitutes the full, complete and final statement of Los Esteros Critical Energy Facility and the District on the matters addressed by this Agreement.

19. This Agreement may be executed in one or more counterparts, each of which shall have the same force and effect as an original, but all of which together shall constitute one and the same instrument.

20. Los Esteros Critical Energy Facility and the District have jointly prepared this Agreement. This Agreement shall be deemed to have been jointly drafted by the Parties for the purpose of applying any rule of construction to the effect that ambiguities are to be construed against the party drafting the agreement.

21. This Agreement may be amended and supplemented only by a written instrument signed by both Los Esteros Critical Energy Facility and the District or their successors-in-interest. However, such execution may be in counterparts and, when so executed, shall be deemed to constitute one and the same document.

22. Any material breach of this Agreement by either Party shall make the Agreement subject to termination upon notice by the non-breaching Party.

23. The waiver of any provision or term of this Agreement shall not be deemed as a waiver of any other provision or term of this Agreement. The mere passage of time, or failure to act upon a breach, shall not be deemed as a waiver of any provision or term of this Agreement.

* * * * *

IN WITNESS WHEREOF, the Parties acknowledge, agree to and accept this Agreement.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

By: _____
Jack P. Broadbent
Air Pollution Control Officer/
Chief Executive Officer

Date: 12/1/14

Approved as to form:

_____
Brian C. Bunger, Esq.
District Counsel

Date: 11/26/2014

LOS ESTEROS CRITICAL ENERGY FACILITY, LLC

By: _____
Katherine C. Piper
Senior Counsel
Authorized Signatory

Date: _____

Approved as to form:

_____
Katherine C. Piper
Senior Counsel

Date: _____

IN WITNESS WHEREOF, the Parties acknowledge, agree to and accept this Agreement.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

By: _____
Jack P. Broadbent
Air Pollution Control Officer/
Chief Executive Officer

Date: _____

Approved as to form:

_____
Brian C. Bunger, Esq.
District Counsel

Date: _____

LOS ESTEROS CRITICAL ENERGY FACILITY, LLC

By: _____
Katherine C. Piper
Senior Counsel
Authorized Signatory

Date: 11/25/14

Approved as to form:

_____
Katherine C. Piper
Senior Counsel

Date: 11/25/14