



CALPINE CORPORATION

717 TEXAS AVENUE, SUITE 1000
HOUSTON, TX 77002

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June 18, 2012

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JUN 19 2012

DIVISION OF AIR
RESOURCE MANAGEMENT

Mr. Jeff Koerner, P.E.
Administrator, Office of Permitting and Compliance
Florida Department of Environmental Protection
Division of Air Resource Management
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301

Re: **Santa Rosa Energy Center – Facility ID ~~4130169~~ *1130168***
Request for Air Construction Permit – Modification of Permit Conditions

Dear Mr. Koerner:

Project No: 1130168-012-AC
concurrent w/ OII-AV

Santa Rosa Energy Center, LLC, a Calpine Corporation (Calpine) asset, owns a combined cycle power plant located at 5001 Sterling Way in Pace, Santa Rosa County, Florida. The Santa Rosa Energy Center (SREC) consists of one nominal 167 megawatt (MW) General Electric 7FA combustion turbine generator (CTG), an unfired heat recovery steam generator (HRSG), and a steam turbine generator (STG).

A Title V air operation permit renewal application for the SREC was recently submitted to the Department in May 2012. The renewal application included an appendix (Appendix I) requesting revisions to two existing Title V permit conditions and the addition of one new condition. Following discussions with Department staff (Mr. Syed Arif, Mr. Kris Lanh, and others), the Department requested submittal of an air construction permit application which would be processed concurrently with the Title V air operation permit renewal application. In response to this request Calpine hereby requests revisions to the following permit conditions for the renewed Title V air operation permit and also to previously issued Air Construction Permit No. 1130168-009-AC (PSD-FL-253A):

(1) Title V Permit Condition No. A.16 – Excess Emissions

Condition No. A.16 allows for one start-up event per day (two hours for a “hot/warm” start and four hours for a “cold start”). Modifications to these start-up limitations are requested to allow excess emissions for multiple types of start-ups and for separate malfunctions. It is our understanding that the Department will develop draft permit language for review and comments by Santa Rosa Energy Center, LLC.

(2) Title V Permit Condition No. A.35 – Continuous Monitoring System Reports

Following revisions to Condition A.35 are requested:

“Continuous Monitoring System Reports. ...Quality assurance procedures must conform to all applicable sections of 40 CFR 60, Appendix F or 40 CFR 75, as applicable. A valid hourly emission rate shall be calculated for each hour in which at least two measurements are obtained at least 15-minutes apart. The monitoring plan, consisting of data on CEM equipment specifications...”

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(3) Add following new permit condition – CEMS Data Exclusion

CEMS Data Exclusion—Combustor Tuning. CEMS data collected during major combustor tuning sessions shall be excluded for the CEMS compliance demonstration for short term emission standards provided the tuning session is performed in accordance with the manufacturer's specifications. All valid emissions data shall be used to demonstrate compliance with annual emission caps. A "major tuning session: would occur after completion of initial construction, a combustor change-out, a major repair or maintenance to a combustor, or other similar circumstances. Prior to performing any major tuning sessions, the permitted shall provide the Department's Northwest District Compliance Authority with advance notice that details the activity and proposing the tuning schedule. The notice shall be by telephone, facsimile transmittal, or electronic mail. [Rule: 62-4.070(3), F.A.C.]


The requests to revise Condition A.35 and to add a new permit condition are made to assist in CEMS standardization across Calpine's Florida assets. The requested language is pulled directly for the Auburndale Peaker Energy Center and Osprey Energy center Title V CEMS requirement (Permit ID: 1050334).

In support of these Title V air operation and prior air construction permit condition revisions, a completed Application for Air Permit - Long Form (Application Information section only, including Responsible Official and Professional Engineer certifications) is enclosed.

Additionally, Calpine is providing responses to the Emergency Fire Water Pump Diesel Engine Information request.

Please feel free to contact me at (713) 570-4829 or by email at Heidi.Whidden@calpine.com if you have any questions regarding this air construction permit request.

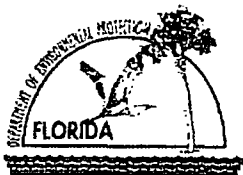
Sincerely,



Heidi M. Whidden
Director – Environmental Services Southeast Region

Enclosure

cc: Tom Davis, P.E., ECT



Department of Environmental Protection RECEIVED

Division of Air Resource Management

JUN 19 2012

APPLICATION FOR AIR PERMIT - LONG FORM

DIVISION OF AIR RESOURCE MANAGEMENT

I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for an air construction permit:

- For any required purpose at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air operation permit;
- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment new source review, or maximum achievable control technology (MACT);
- To assume a restriction on the potential emissions of one or more pollutants to escape a requirement such as PSD review, nonattainment new source review, MACT, or Title V; or
- To establish, revise, or renew a plantwide applicability limit (PAL).

Air Operation Permit – Use this form to apply for:

- An initial federally enforceable state air operation permit (FESOP); or
- An initial, revised, or renewal Title V air operation permit.

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: Santa Rosa Energy Center, LLC	
2. Site Name: Santa Rosa Energy Center	
3. Facility Identification Number: 1130168	
4. Facility Location... Street Address or Other Locator: 5001 Sterling Way City: Pace County: Santa Rosa Zip Code: 32571-2758	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Title V Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Application Contact

1. Application Contact Name: Heidi M. Whidden, Director - Environmental Services Southeast Region	
2. Application Contact Mailing Address... Organization/Firm: Calpine Corporation (c/o EHS Department) Street Address: 717 Texas Avenue, Suite 1000 City: Houston State: Texas Zip Code: 77002-2743	
3. Application Contact Telephone Numbers... Telephone: (713) 570-4829 ext. Fax: (please email)	
4. Application Contact E-mail Address: Heidi.Whidden@calpine.com	

Application Processing Information (DEP Use)

1. Date of Receipt of Application: 6-19-12	3. PSD Number (if applicable):
2. Project Number(s): 1130168-012-AC	4. Siting Number (if applicable):

APPLICATION INFORMATION

Purpose of Application

This application for air permit is being submitted to obtain: (Check one)

Air Construction Permit

- Air construction permit.
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.

Air Operation Permit

- Initial Title V air operation permit.
- Title V air operation permit revision.
- Title V air operation permit renewal.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)

- Air construction permit and Title V permit revision, incorporating the proposed project.
- Air construction permit and Title V permit renewal, incorporating the proposed project.

Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:

- I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

Application Comment

Operation of the Santa Rosa Energy Center (SREC) is currently authorized by Florida Department of Environmental Protection (FDEP) Title V Air Operation Permit No. 1130168-010-AV issued with an effective date of November 2, 2010 (2nd Revision) , and an expiration date of December 31, 2012.

This application requests revisions to current Title V air operation permit conditions and to previously issued Air Construction Permit No. 1130168-001-AC (PSD-FL-253A).

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Processing Fee
001	Nominal 167 MW Combined-Cycle Combustion Turbine Generator; CT-1	N/A	N/A
003	Mechanical Draft Cooling Tower (Unregulated Emission Unit)	N/A	N/A

Application Processing Fee

Check one: Attached - Amount: \$ _____ Not Applicable

Note: The SREC has been issued Final Title V Operation Permit Number 1130168-010-AV. An application processing fee is not required pursuant to Rule 62-213.205(4), F.A.C.

APPLICATION INFORMATION

Owner/Authorized Representative Statement **NOT APPLICABLE**

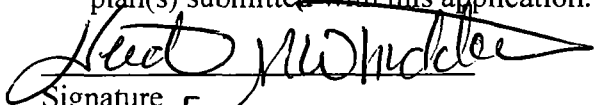
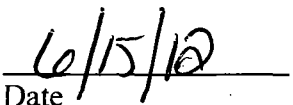
Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name :
2. Owner/Authorized Representative Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
3. Owner/Authorized Representative Telephone Numbers... Telephone: () - ext. Fax: () -
4. Owner/Authorized Representative E-mail Address:
5. Owner/Authorized Representative Statement: <i>I, the undersigned, am the owner or authorized representative of the facility addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other requirements identified in this application to which the facility is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit.</i> _____ Signature _____ Date

APPLICATION INFORMATION

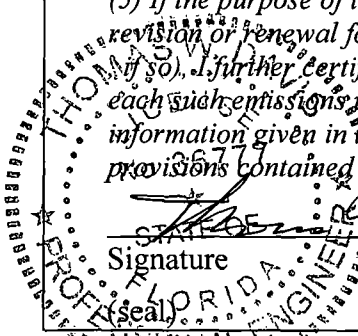
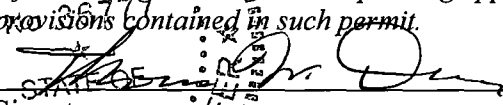
Application Responsible Official Certification

Complete if applying for an initial, revised, or renewal Title V air operation permit or concurrent processing of an air construction permit and revised or renewal Title V air operation permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name: Heidi M. Whidden, Director - Environmental Services Southeast Region
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input checked="" type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input checked="" type="checkbox"/> The designated representative at an Acid Rain source, CAIR source, or Hg Budget source.
3. Application Responsible Official Mailing Address... Organization/Firm: Calpine Corporation Street Address: 717 Texas Ave. Suite 1000 City: Houston State: TX Zip Code: 77002-2743
4. Application Responsible Official Telephone Numbers... Telephone: (713) 570-4829 ext. Fax: Please email
5. Application Responsible Official E-mail Address: Heidi.Whidden@calpine.com
6. Application Responsible Official Certification: I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.  Signature  Date

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: Thomas W. Davis Registration Number: 36777
2. Professional Engineer Mailing Address... Organization/Firm: Environmental Consulting & Technology, Inc. Street Address: 3701 NW 98th Street City: Gainesville State: Florida Zip Code: 32606-5004
3. Professional Engineer Telephone Numbers... Telephone: (352) 248 - 3351 ext. Fax: (352) 332 - 6722
4. Professional Engineer E-mail Address: tdavis@ectinc.com
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> (1) <i>To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and</i> (2) <i>To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.</i> (3) <i>If the purpose of this application is to obtain a Title V air operation permit (check here <input type="checkbox"/>, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.</i> (4) <i>If the purpose of this application is to obtain an air construction permit (check here <input type="checkbox"/>, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here <input checked="" type="checkbox"/>, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.</i> (5) <i>If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here <input type="checkbox"/>, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.</i>  Signature:  Date: <u>6/8/12</u>

* Attach any exception to certification statement.

**Calpine Santa Rosa Energy Center
Emergency Fire Water Pump Diesel Engine Information**

1. What type of fuel does the engine use (include sulfur content)?
Ultra low sulfur diesel (ULSD fuel oil. Sulfur content of 0.0015 weight percent.
2. What type of engine do you have? (ex. Compression ignition or diesel (CI), spark ignition (SI), four stroke spark ignition that is lean burn (4SLB), two stroke lean burn (2SLB), dual (natural gas plus diesel) fired or landfill gas fired.)
Compression ignition (CI)
3. What is the HP (Hint: 1 HP = 0.7456 KW) of the stationary engine?
160 brake horsepower (BHP) Note: this is an update to the May 2012 Title V Application to ensure the HP matches the nameplate data. Previously supplied data was based on actual operation.
4. Is the engine a stationary engine and therefore subject to the RICE requirements in the NESHAP or the NSPS? By contrast, a mobile (or relocatable) source engine could be a temporary replacement unit and located at a stationary source for less than 1 year and has been properly certified (with an engine label) as meeting the standards that would be applicable to such engine under the appropriate non-road engine provisions.
Yes
5. Has the engine been refurbished/reconstructed? Upon reconstruction, an existing engine becomes subject to the relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source; therefore, has the engine ever had components replaced to such an extent that:
 - (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and
 - (2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act.**No**
6. What is the date of manufacture of the engine (year and month, if possible)?
Note: Reconstructed engines are assigned a new date of manufacture if the fixed capital cost of the new and refurbished components exceeds 75 percent of the fixed capital cost of a comparable entirely new facility.
9/27/2010 per nameplate
7. Is the engine EPA Certified and labeled (what Tier of emission standards does the engine meet, if any)?
Yes, Tier 3 The engine conforms to 2010 U.S. EPA regulations for large nonroad and stationary compression-ignition engines and California regulations for heavy-duty off-road diesel cycle engines as applicable.
8. When did you commence construction (date the engine was ordered) or reconstruction on your stationary engine (month, day and year)?
6/3/2010
9. What is the engine displacement (liters per cylinder)?
1.125 liters per cylinder
10. Does the engine use an oxidation catalyst, diesel particulate filter (DPF), or selective catalytic reduction (SCR) (specify any controls employed)?
No
11. Does the engine have a continuous emissions monitoring system (CEMS) for any pollutants or a continuous parameter monitoring system (CPMS)?
No
12. What are the total hours of operation per year for the engine (estimate or based on historical)?
Less than 500
13. How many of the total hours are during an emergency situation (estimate or historical)?

**Calpine Santa Rosa Energy Center
Emergency Fire Water Pump Diesel Engine Information**

The facility has not required emergency operation since installation.

14. How many of the total hours, if any, are part of the demand response program (if applicable)?

Zero

15. Is the engine used for peak shaving, to generate income for a facility to supply power to an electrical grid, or supply power as a part of a financial arrangement with another entity (state if future operation will include these modes of operation)?

No

16. For Fire Pumps: Is the engine part of a fire pump and was the engine manufactured as a certified National Fire Protection Association (NFPA) engine after July 1, 2006? Is the engine a high speed engine (operation rated at or above 2,650 rpm)?

Engine is a certified NFPA engine manufactured after July 1, 2006. Engine is not a high speed engine.