# SANTA ROSA ENERGY CENTER TITLE V AIR OPERATION PERMIT RENEWAL APPLICATION

RECEIVED

ORIGINAL

MAY 18 2012

DIVISION OF AIR RESOURCE MANAGEMENT

Prepared for:



Houston, Texas

Prepared by:



Environmental Consulting & Technology, Inc. 3701 Northwest 98<sup>th</sup> Street Gainesville, Florida 32606

ECT No. 120348-0100

**May 2012** 



Environmental Consulting & Technology, Inc.

May 17, 2012 ECT No. 120348-0100

# RECEIVED

MAY 18 2012

DIVISION OF AIR RESOURCE MANAGEMENT

Mr. Jeff Koerner 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, LLC

Santa Rosa Energy Center (SREC) Title V Air Operation Permit Renewal Application

Dear Mr. Koerner:

Santa Rosa Energy Center, LLC, operates a combined-cycle power plant located at 5001 Sterling Way in Pace, Santa Rosa County, Florida. The SREC consists of one nominal 167-megawatt (MW) General Electric 7FA combustion-turbine generator (CTG), an unfired heat recovery steam generator, and a nominal 74.5-MW steam turbine generator. Ancillary support equipment includes a mechanical draft cooling tower and a small preheater to raise the temperature of natural gas above its dew point prior to combustion in the CTG. The CTG and natural gas preheater are both fired exclusively with pipeline natural gas.

ROJECT No.: 1130/68-011-AL

Operation of the SREC is currently authorized by Florida Department of Environmental Protection (FDEP) Title V Air Operation Permit No. 1130168-010-AV: This Title V permit was issued with a second revision effective date of November 2, 2010, and an expiration date of December 31, 2012.

On behalf of Santa Rosa Energy Center, LLC, four copies of a Title V air operation permit application for the SREC are enclosed for FDEP review. Pursuant to the requirements of Section 62-213.400, Florida Administrative Code (F.A.C.), the application package contains FDEP's Application for Air Permit – Long Form and all required supplemental facility and emission unit information.

Ms. Heidi Whidden will contact the assigned FDEP permitting engineer to set up a meeting to discuss the requested modifications. If there are any questions regarding this application, she may be contacted at (713) 570-4829 or via e-mail at Heidi. Whidden@calpine.com.

Sincerely,

ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.

Thomas W. Davis, P.E. Principal Engineer

TWD/dlm

Enclosures

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3701 Northwest 98th Street Gainesville, FL 32606

> (352)332-0444

> > FAX (352) 332-6722

#### INTRODUCTION

Calpine Corporation (Calpine) operates an electrical combined-cycle facility 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 nominal 74.5-MW steam turbine generator (STG). Ancillary support equipment includes a mechanical draft cooling tower and a small preheater to raise the temperature of natural gas above its dew point prior to combustion in the CTG. The CTG and natural gas preheater are both fired exclusively with pipeline natural gas.

Steam produced by the triple-pressure HRSG is sent to the STG for additional power generation or to the adjacent Sterling Fibers acrylic fiber manufacturing facility (or another host) for use as process steam. During operation of the Sterling Fibers facility, most of the SREC HRSG immediate-pressure steam will be routed to the Sterling Fibers steam header for use as process steam.

The SREC CTG is subject to New Source Performance Standards (NSPS) Subpart GG, Standards of Performance for Stationary Gas Turbines, which applies to gas turbines constructed after October 3, 1977. SREC emissions units were also subject to Prevention of Significant Deterioration (PSD) review, including best available control technology (BACT). The CTG is an affected emissions unit under both the Acid Rain Program (ARP) and the Clean Air Interstate Rule (CAIR).

Operation of the SREC is currently authorized by Florida Department of Environmental Protection (FDEP) Title V Air Operation Permit No. 1130168-010-AV. This Title V permit was issued with a second revision effective date of November 2, 2010, and an expiration date of December 31, 2012.

FDEP Title V regulations are codified in Chapter 62-213, Florida Administrative Code (F.A.C.), Operation Permits for Major Sources of Air Pollution. With respect to Title V air operation permit renewal deadlines, Rule 62-213.420(1)(a)2., F.A.C. requires the

permittee apply for a permit renewal at least 225 days prior to permit expiration for permits that expire on or after June 1, 2009. For the SREC, this regulatory deadline results in the submittal of a Title V permit renewal application no later than May 20, 2012.

This application package, consisting of the FDEP's Application for Air Permit – Long Form, effective March 11, 2010, and all required supplemental facility and emissions unit information, constitutes Calpine's Title V permit renewal application for the Santa Rosa Energy Center and is submitted to satisfy the requirements of Section 62-213.400, F.A.C.

The following attachments are included as referenced in the permit application:

- Attachment A—Facility Location Map.
- Attachment B—Facility Plot Plan.
- Attachment C—Process Flow Diagram.
- Attachment D—Precautions to Prevent Emissions of Unconfined Particulate
   Matter.
- Attachment E—List of Insignificant Activities.
- Attachment F—List of Unregulated Emissions Units.
- Attachment G—Identification of Applicable Requirements.
- Attachment H—Compliance Report.
- Attachment I—Requested Changes to Current Title V Air Operation Permit.
- Attachment J—Acid Rain Part.
- Attachment K—Clean Air Interstate Rule (CAIR) Part.
- Attachment L—Fuel Specifications.
- Attachment M—Procedures for Startup and Shutdown.

# FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

**APPLICATION FOR AIR PERMIT - LONG FORM** 





# **Department of** Environmental Protection RECEIVED

**Division of Air Resource Management** 

# MAY 18 2012

APPLICATION FOR AIR PERMIT - LONG FORM

#### I. APPLICATION INFORMATION

DIVISION OF AIR RESOURCE MANAGEMENT

**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

Facility Owner/Company Name: Santa Rosa Energy Center, LLC

An initial, revised, or renewal Title V air operation permit.

To ensure accuracy, please see form instructions.

# **Identification of Facility**

			<u> </u>		
2.	Site Name:	Santa Rosa Ene	ergy Center		
3.	Facility Ident	tification Number:	1130168		
4.	Facility Loca	ition			
	Street Addres	ss or Other Locator	5001 Sterlin	ıg Way	
	City: Pace		County: San	nta Rosa	Zip Code: 32571-2758
5.	Relocatable I	Facility?	(		itle V Permitted Facility?
	Yes	⊠ No		⊠ Yes	No
Ap	plication Cor	ntact			
1.	Application (	Contact Name: Hei	di M. Whidd	len, Director	– Environmental Services
		Sou	theast Regio	n	
2.	Application Contact Mailing Address				
	Organization/Firm: Calpine Corporation (c/o EHS Department)				
	Street Ad	dress: 717 Texas A	Avenue, Suite	e 1000	
		City: Houston	State	e: Texas	Zip Code: 77002-2743
3.	Application (	Contact Telephone	Numbers		
	Telephone:	(713) 570-4829	ext.	Fax: (pleas	se email)
4.	Application (	Contact E-mail Add	ress: Heidi.\	Whidden@ca	lpine.com
Application Processing Information (DEP Use)					
1.	Date of Recei	pt of Application:	5-18-12	3. PSD Nun	nber (if applicable):
		er(s): 100/6-	× 10 10	4. Siting Nu	imber (if applicable):

DEP Form No. 62-210.900(1) - Form

Effective: 3/11/2010 1

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#### **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, 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 (EDER) Title V. Air Operation Property No. 1120168

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 (2<sup>nd</sup> Revision), and an expiration date of December 31, 2012.

This application form and supplemental facility and emission unit information constitutes Calpine's Title V air operation permit renewal application for the SREC.

# **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: \$	
Note: The SREC has been issued Final Title V Operatio An application processing fee is not required pursuant	

Owner/Authorized Representative Statement NOT APPLICABLE Complete if applying for an air construction permit or an initial FESOP.

1.	Owner/Authorized Representat	tive Name :		
2.	Owner/Authorized Representate Organization/Firm: Street Address:	tive Mailing Address		
	City:	State:	Zip Code:	
3.	Owner/Authorized Representat	tive Telephone Numbers		
	Telephone: ( ) - ext.	Fax: ( ) -		
4.	Owner/Authorized Representat	tive E-mail Address:		
5.	Owner/Authorized Representat	tive Statement:	-	
I, the undersigned, am the owner or authorized representative of the facility address this air permit application. I hereby certify, based on information and belief former reasonable inquiry, that the statements made in this application are true, accurate complete and that, to the best of my knowledge, any estimates of emissions reported application are based upon reasonable techniques for calculating emissions. The opportunant emissions units and air pollution control equipment described in this applicable 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 required identified in this application to which the facility is subject. I understand that a pergranted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of facility or any permitted emissions unit.				
	Signature	<del></del>	Date	

### **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."

VI.	nciai 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):
	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.
	For a partnership or sole proprietorship, a general partner or the proprietor, respectively.  For a municipality, county, state, federal, or other public agency, either a principal
	executive officer or ranking elected official.  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 e-mail
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.
(	Signatura S/13/10

DEP Form No. 62-210.900(1) - Form

Effective: 3/16/08



#### MEMORANDUM

To:

**Delegation of Authority** 

From:

John Adams, Senior Vice President - Power Operations

Subject:

Delegation of Signature Authority - Plant Managers - Regulatory Filings

Date:

April 1, 2012

Commencing upon the effective date set forth below and continuing until the earliest of (i) the expiration date set forth below, (ii) the date on which the individual named below is no longer an employee, consultant or officer of Calpine Corporation or any of its affiliates, or (iii) the undersigned is no longer an employee, consultant or officer of Calpine Corporation or any of its affiliates, I hereby authorize, empower and direct such individual to perform any and all acts, including authorization of expenditures and execution of agreements, documents, instruments and certificates, for and on behalf of the Calpine entity identified below, that such individual deems necessary or advisable to carry out the business of such Calpine entity, consistent with the policies and procedures of Calpine Corporation, including Calpine's Signature Authority Limits policy; provided, however, that obligations arising from such acts do not exceed the maximum dollar amount set forth below.

Individual: Heidi Whidden

Title: Director - EHS Southeast Region

Calpine entity for which authority is granted: Calpine Corporation/C9663

N/A - For environmental regulatory filings and permits

Maximum dollar amount: (See attached Schedule 1)

Effective date: April 1, 2012

Expiration date: December 31, 2012

When executing agreements for and on behalf of the Calpine entity identified above, such individual shall use the following signature block:

Calpine Corporation and Calpine Operating Services Company, Inc.

Name: Heldi Whidden

EHS Director Southeast Region and designated Representative/Responsible

Title: Official

Any and all actions taken or caused to be taken by such individual in the conduct of the business of the Calpine entity identified above in connection with any of the matters contemplated by this delegation of authority, prior to the date hereof, are hereby acknowledged to be duly authorized acts and deeds performed on behalf of such Calpine entity and are hereby approved, adopted, accepted and ratified in all respects as the acts and deeds of such Calpine entity and that said actions shall have the same force and effect as if they were taken with the prior approval of such Calpine entity. This memorandum supersedes any and all previous delegations of such authority on behalf of such Calpine entity to the individual named above. Such individual may not further delegate the authority granted herein.

Stricerely,

John Adams, SVP

ok NN

4/10/12



#### SCHEDULE 1

- 1. All environmental permits and regulatory filings for the following plants:
  - a. Auburndale Peaker Energy Center
  - b. Broad River Energy Center
  - c. Carville Energy Center
  - d. Columbia Energy Center
  - e. Decatur Energy Center
  - f. Hog Bayou Energy Center
  - g. Morgan Energy Center
  - h. Oneta Energy Center
  - i. Pine Bluff Energy Center
  - j. Santa Rosa Energy Center
  - k. Washington Parish Energy Center

Environmental Health & Safety Responsibility and Authority Guidelines for Limited Partnerships, Limited Liability Companies And Subsidiary Corporations

A number of routine Environmental, Health & Safety (EHS) reports and filings that are submitted to regulatory agencies on behalf of the project entities within Calpine Power Company's various regions require a certification in which the signatory is required to attest to his authority to act on behalf of the owners and/or operator of the



facility. However, under current project entity formation documents, the authority and responsibility to act on behalf of a Calpine entity, as a representative with regard to EHS reporting and compliance matters is not explicit.

To address the lack of explicit authority, the positions of "Plant Manager/General Manager" and "Regional EHS Director" should be authorized via a Delegation of Authority Memorandum by each project entity to act as follows:

#### 1. Plant Managers/General Managers

For each project entity, the person holding the position of Plant Manager/General Manager is authorized and required to act on behalf of the project entity for all routine and/or re-occurring EHS compliance and reporting required by permit, regulation, or contract including but not limited to: periodic storm/waste water discharge reports, quarterly emissions reports, and annual reports summarizing annual compliance of the project with existing permit contract and regulatory limitations.

This responsibility shall include the Plant Manager/General Manager serving as the Designated Representative/Responsible Official for all routine and/or re-occurring EHS compliance and reporting under all titles of the Clean Air Act, the Clean Water Act and in similar capacity for other federal, state or local EHS regulatory programs.

#### 2. Regional EHS Director

The person holding the position of Regional EHS Director is authorized to act as an alternate to the Plant Manager/General Manager on behalf of the project for all matters set forth under Item 1, above.

In addition to the above, the Regional EHS Director is authorized to serve as the primary point of contact with federal, state and local EHS regulatory agencies, concerning queries, modifications to permits and plans, enforcement actions and regulatory/policy clarification and development.

The Regional EHS Director also is authorized to serve as the Responsible Official regarding all applicable permit documents and is authorized to make technical and administrative filings related to permit applications, modifications, renewals, as well as represent the company with respect to notices of violations, safety citations, and management of environmental commodities.

The Regional EHS Director is additionally authorized to make representations and administrative filings as required under the Department of Homeland Security's Chemical Facility Anti-Terrorism Standards rules.

# **Professional Engineer Certification**

1.	Professional Engineer Name: Thomas W. Davis
	Registration Number: 36777
2.	Professional Engineer Mailing Address
1	Organization/Firm: Environmental Consulting & Technology, Inc.
	Street Address: 3701 NW 98 <sup>th</sup> 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, the undersigned, hereby certify, except as particularly noted herein*, that:
	(1) 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
	(2) 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.
	(3) If the purpose of this application is to obtain a Title V air operation permit (check here \int , 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.
	(4) If the purpose of this application is to obtain an air construction permit (check here, 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, 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.
	(5) 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, 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.  Signature
	(seal) STATE OF
L	ttach any exception to conflication statement

\* Attach any exception to confine attach any exception to confine attach any exception to confine attach and exception at

Effective: 3/16/08

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#### A. GENERAL FACILITY INFORMATION

#### **Facility Location and Type**

1. Facility UTM Coordinates			2. Facility Latitude/Longitude			
	Zone <b>16</b> East (km) <b>489.0</b>			Latitude (DD/MM/SS) 30/33/58		
	North (km) 3381.5			Longitude (DD/MN	M/SS) 87/06/54	
3.	Governmental	4. Facility Status	5.	Facility Major	6. Facility SIC(s):	
	Facility Code: Code:			Group SIC Code:		
	0	A		49	4931	

7. Facility Comment:

Facility coordinates are for CT-1 stack, North American Datum 1983.

#### Facility Contact

1. Facility Contact Name:

Jeff Harmon, Plant Engineer

2. Facility Contact Mailing Address...

Organization/Firm: Calpine Corporation

City: Pace

Street Address: 5001 Sterling Way

3. Facility Contact Telephone Numbers:

Telephone: (850) 995-2135 ext. Fax: Please email

4. Facility Contact E-mail Address: harmonje@calpine.com

#### Facility Primary Responsible Official

Complete if an "application responsible official" is identified in Section I that is not the facility "primary responsible official."

State: FL

1. Facility Primary Responsible Official Name:

Dana McNally, General Manager

2. Facility Primary Responsible Official Mailing Address...

Organization/Firm: Calpine Corporation
Street Address: 5001 Sterling Way

City: Pace State: FL Zip Code: 32571-2758

3. Facility Primary Responsible Official Telephone Numbers...

Telephone: (850) 551-4663 ext. Fax: Please email

4. Facility Primary Responsible Official E-mail Address: Dana.McNally@calpine.com

DEP Form No. 62-210.900(1) – Form Effective: 3/11/2010

Zip Code: 32571-2758



#### MEMORANDUM

Tó:

Delegation of Authority

From:

John Adams, Senior Vice President - Power Operations

Subject:

Delegation of Signature Authority - Plant Managers - Requiatory Filings

Date:

April 1, 2012

Commencing upon the effective date set forth below and continuing until the earliest of (1) the expiration date set forth below, (ii) the date on which the individual named below is no longer an employee, consultant or officer of Calpine Corporation or any of its affiliates, or (iii) the undersigned is no longer an employee, consultant or officer of Calpine Corporation or any of its affiliates, I hereby authorize, empower and direct such individual to perform any and all acts, including authorization of expenditures and execution of agreements, documents, instruments and certificates, for and on behalf of the Calpine entity identified below, that such individual deems necessary or advisable to carry out the business of such Calpine entity, consistent with the policies and procedures of Calpine Corporation, including Calpine's Signature Authority Limits policy; provided, however, that obligations arising from such acts do not exceed the maximum dollar amount set forth below.

Individual: Dana McNally

Titie: General Manager

Calpine entity for which authority is granted: Calpine Corporation/@256

N/A - For environmental regulatory fillings and permits

Maximum dollar amount: (See attached Schedule 1)

Effective date: April 1, 2012

Expiration date: December 31, 2012

When executing agreements for and on behalf of the Calpine entity identified above, such individual shall use the following signature block:

Calpine Corporation and Calpine Operating Services Company, Inc.

Name: Dana McNally

Title: General Manager and designated Representative/Responsible Official

Any and all actions taken or caused to be taken by such individual in the conduct of the business of the Calpine entity identified above in connection with any of the matters contemplated by this delegation of authority, prior to the date hereof, are hereby acknowledged to be duly authorized acts and deeds performed on behalf of such Calpine entity and are hereby approved, adopted, accepted and ratified in all respects as the acts and deeds of such Calpine entity and that said actions shall have the same force and effect as if they were taken with the prior approval of such Calpine entity. This memorandum supersedes any and all previous delegations of such authority on behalf of such Calpine entity to the individual named above. Such individual may not further delegate the authority granted herein.

Sincerely.

John Adams, SVP

NH

4/10112



#### **SCHEDULE 1**

- 1. All environmental permits and regulatory filings for the following plants:
  - a. Hog Bayou Energy Center
  - b. Santa Rosa Energy Center

#### Environmental Health & Safety Responsibility and Authority Guidelines for Limited Partnerships, Limited Liability Companies And Subsidiary Corporations

A number of routine Environmental, Health & Safety (EHS) reports and filings that are submitted to regulatory agencies on behalf of the project entities within Calpine Power Company's various regions require a certification in which the signatory is required to attest to his authority to act on behalf of the owners and/or operator of the facility. However, under current project entity formation documents, the authority and responsibility to act on behalf of a Calpine entity, as a representative with regard to EHS reporting and compliance matters is not explicit.

To address the lack of explicit authority, the positions of "Plant Manager/General Manager" and "Regional EHS Director" should be authorized via a Delegation of Authority Memorandum by each project entity to act as follows:

#### 1. Plant Managers/General Managers

For each project entity, the person holding the position of Plant Manager/General Manager is authorized and required to act on behalf of the project entity for all routine and/or re-occurring EHS compliance and reporting required by permit, regulation, or contract including but not limited to: periodic storm/waste water discharge reports, quarterly emissions reports, and annual reports summarizing annual compliance of the project with existing permit contract and regulatory limitations.

This responsibility shall include the Plant Manager/General Manager serving as the Designated Representative/Responsible Official for all routine and/or re-occurring EHS compliance and reporting under all titles of the Clean Air Act, the Clean Water Act and in similar capacity for other federal, state or local EHS regulatory programs.



#### 2. Regional EHS Director

The person holding the position of Regional EHS Director is authorized to act as an alternate to the Plant Manager/General Manager on behalf of the project for all matters set forth under Item 1, above.

In addition to the above, the Regional EHS Director is authorized to serve as the primary point of contact with federal, state and local EHS regulatory agencies, concerning queries, modifications to permits and plans, enforcement actions and regulatory/policy clarification and development.

The Regional EHS Director also is authorized to serve as the Responsible Official regarding all applicable permit documents and is authorized to make technical and administrative filings related to permit applications, modifications, renewals, as well as represent the company with respect to notices of violations, safety citations, and management of environmental commodities.

The Regional EHS Director is additionally authorized to make representations and administrative filings as required under the Department of Homeland Security's Chemical Facility Anti-Terrorism Standards rules.

### **Facility Regulatory Classifications**

Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a "major source" and a "synthetic minor source."

1.	Small Business Stationary Source Unknown
2.	Synthetic Non-Title V Source
3.	Title V Source
4.	Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)
5.	Synthetic Minor Source of Air Pollutants, Other than HAPs
6.	Major Source of Hazardous Air Pollutants (HAPs)
7.	Synthetic Minor Source of HAPs
8.	One or More Emissions Units Subject to NSPS (40 CFR Part 60)
9.	One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)
10.	One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)
11.	Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))
Po	the combined cycle combustion turbine (EU-001) is each subject to New Source erformance Standard (NSPS) Subpart GG, Standards of Performance for Stationary as Turbines.
St Et St	the emergency fire water pump diesel engine is subject to NSPS Subpart IIII, and ards of Performance for Stationary Compression Ignition Internal Combustion and National Emission Standards for Hazardous Air Pollutants (NESHAPS) abpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for ationary Reciprocating Internal Combustion Engines.

# **List of Pollutants Emitted by Facility**

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
СО	A	N
NO <sub>x</sub>	A	N
SO <sub>2</sub>	В	N
VOC	В	N

### **B. EMISSIONS CAPS**

# Facility-Wide or Multi-Unit Emissions Caps NOT APPLICABLE

1. Pollutant Subject to Emissions Cap	2. Facility- Wide Cap [Y or N]? (all units)	3. Emissions Unit ID's Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emission s Cap
7. Facility-W	ide or Multi-Unit	Emissions Cap Con	nment:		

# C. FACILITY ADDITIONAL INFORMATION

# Additional Requirements for All Applications, Except as Otherwise Stated

1.	Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  Attached, Document ID: Attachment B Previously Submitted, Date:
2.	Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  Attached, Document ID: Attachment C Previously Submitted, Date:
3.	Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  Attached, Document ID: Attachment D Previously Submitted, Date:
Ad	Iditional Requirements for Air Construction Permit Applications NOT APPLICABLE
1.	Area Map Showing Facility Location:  Attached, Document ID: Not Applicable (existing permitted facility)
2.	Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL):  Attached, Document ID:
3.	Rule Applicability Analysis:  Attached, Document ID:
4.	List of Exempt Emissions Units:  Attached, Document ID: Not Applicable (no exempt units at facility)
5.	Fugitive Emissions Identification:  Attached, Document ID: Not Applicable
6.	Air Quality Analysis (Rule 62-212.400(7), F.A.C.):  Attached, Document ID: Not Applicable
7.	Source Impact Analysis (Rule 62-212.400(5), F.A.C.):  Attached, Document ID: Not Applicable
	Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.):  Attached, Document ID: Not Applicable
	Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.):  Attached, Document ID: Not Applicable
10	. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.):  Attached, Document ID: Not Applicable

DEP Form No. 62-210.900(1) - Form

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#### C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

# Additional Requirements for FESOP Applications NOT APPLICABLE 1. List of Exempt Emissions Units: Attached, Document ID: Not Applicable (no exempt units at facility) Additional Requirements for Title V Air Operation Permit Applications 1. List of Insignificant Activities: (Required for initial/renewal applications only) Attached, Document ID: Attachment E Not Applicable 2. Identification of Applicable Requirements: (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought) Attached, Document ID: Attachment G Not Applicable (revision application with no change in applicable requirements) 3. Compliance Report and Plan: (Required for all initial/revision/renewal applications) Attached, Document ID: Attachment H Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing. 4. List of Equipment/Activities Regulated under Title VI: (If applicable, required for initial/renewal applications only) ☐ Attached, Document ID: Equipment/Activities Onsite but Not Required to be Individually Listed Not Applicable 5. Verification of Risk Management Plan Submission to EPA: (If applicable, required for initial/renewal applications only) Attached, Document ID: Not Applicable 6. Requested Changes to Current Title V Air Operation Permit:

Attached, Document ID: Attachment I

Not Applicable

# C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Facilities Subject to Acid Rain, CAIR, or Hg Budget Program

1. Acid	Rain Program Forms:				
Acid	Rain Part Application (DEP Form No. 62-210.900(1)(a)):				
	Attached, Document ID: Attach. J Previously Submitted, Date:				
	Not Applicable (not an Acid Rain source)				
	e II NO <sub>X</sub> Averaging Plan (DEP Form No. 62-210.900(1)(a)1.):				
	Attached, Document ID: Previously Submitted, Date:				
$  \qquad   \qquad  $	Not Applicable				
	Unit Exemption (DEP Form No. 62-210.900(1)(a)2.):				
	Attached, Document ID: Previously Submitted, Date:				
	Not Applicable				
	R Part (DEP Form No. 62-210.900(1)(b)):				
	Attached, Document ID: Attach. K Previously Submitted, Date:				
	Not Applicable (not a CAIR source)				
_	sudget Part (DEP Form No. 62-210.900(1)(c)):				
=	Attached, Document ID: Previously Submitted, Date:				
	Not Applicable (not a Hg Budget unit)				
Addition	nal Requirements Comment				
Facility	Location Map is provided as Attachment A.				
List of Unregulated Emission Units is provided as Attachment F.					
1					

DEP Form No. 62-210.900(1) – Form Effective: 3/16/08

Section [1]

of [2]

# A. GENERAL EMISSIONS UNIT INFORMATION

# Title V Air Operation Permit Emissions Unit Classification

1.	Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)						
	<ul> <li>☑ The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.</li> <li>☑ The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.</li> </ul>						
En	nissions Unit Descri	ption and Status					
1.	Type of Emissions	Unit Addressed in this So	ection: (Check one)				
		Unit Information Section uction unit, or activity, w					
	which has at lea	ast one definable emissio	n point (stack or vent).				
	process or prod	Unit Information Section units and activitie but may also produce fug	s which has at least one of	missions unit, a group of definable emission point			
		Unit Information Section production units and ac					
2.	2. Description of Emissions Unit Addressed in this Section:  Combined-Cycle Combustion Turbine (CT-1)						
3.	Emissions Unit Idea	ntification Number: 001					
4.	Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:			
	A	N/A	N/A	49			
8.		pplicability: (Check all t	hat apply)				
	Acid Rain Unit						
	☐ CAIR Unit						
	Hg Budget Unit						
	9. Package Unit: Manufacturer: General Electric Model Number: MS7001FA						
	10. Generator Nameplate Rating: 167 MW (CT – nominal), 74.5 MW (steam turbine)						
11	. Emissions Unit Cor	nment:					
Combined-cycle CT-1 consists of one nominal 167-megawatt (MW) General Electric MS7001FA combustion turbine generator (CTG), an unfired heat recovery steam generator (HRSG), and a 74.5-MW steam turbine generator (STG). Steam produced by the triple pressure HRSG is sent to the STG for additional power generation. Steam may also be provided to the adjacent Sterling Fibers acrylic fiber manufacturing facility (or another host) for use as process steam.							

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# EMISSIONS UNIT INFORMATION Section [1] of [2]

Emissions Unit Control Equipment/Method: Control 1 of 1
1. Control Equipment/Method Description:
Dry Low NO <sub>x</sub> (DLN) combustion
2. Control Device or Method Code: <b>025</b>
Emissions Unit Control Equipment/Method: Control of
1. Control Equipment/Method Description:
2. Control Device or Method Code:
Emissions Unit Control Equipment/Method: Control of
1. Control Equipment/Method Description:
2. Control Device or Method Code:
Emissions Unit Control Equipment/Method: Control of
1. Control Equipment/Method Description:
2. Control Device or Method Code:

Section [1]

[2] of

#### **B. EMISSIONS UNIT CAPACITY INFORMATION**

(Optional for unregulated emissions units.)

#### **Emissions Unit Operating Capacity and Schedule**

Maximum Process or Throughput Rate: N/A Maximum Production Rate: N/A

3. Maximum Heat Input Rate: 1,780 million Btu/hr (LHV) @ 100-percent load and

compressor inlet combustion air conditions of 59°F

temperature, 60-percent relative humidity, and 14.7 psia.

4. Maximum Incineration Rate: pounds/hr

tons/day

5. Requested Maximum Operating Schedule:

24 hours/day

7 days/week

52 weeks/year

8,760 hours/year

6. Operating Capacity/Schedule Comment:

Maximum hourly heat input rates will vary with ambient conditions and combustion turbine characteristics.

LHV = lower heating value

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Section [1] [2] of

# C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

# **Emission Point Description and Type**

1.	. Identification of Point on Plot Plan or Flow Diagram: CT-1		2. Emission Point 7	Type Code: 1	
3.	Descriptions of Emission	Points Comprising	this Emissions Unit	for VE Tracking:	
	N/A				
	IVA				
4.	ID Numbers or Descriptio	ns of Emission Ur	nits with this Emission	Point in Common:	
	•				
	N/A				
5.	Discharge Type Code:	6. Stack Height		7. Exit Diameter:	
	<u>V</u>		00 feet	19.0 feet	
8.	Exit Temperature: 196 - 216 °F		netric Flow Rate: ,204 acfm	10. Water Vapor: N/A %	
11		L			
	11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet		
13.	Emission Point UTM Coo	rdinates	14. Emission Point Latitude/Longitude Latitude (DD/MM/SS)		
	Zone: East (km):		,	•	
	North (km): Longitude (DD/MM/SS)			MM/SS)	
15.	Emission Point Comments	:			
	Field 9 actual volumetric flow rate based on vendor data for operation during power augmentation mode.				
	·				

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**Section** [1] **of** [2]

# D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1.	. Segment Description (Process/Fuel Type):					
	Internal Combustion Engines, Electric Generation, Natural Gas, Turbine					
2.	Source Classification Code 2-01-002-01	e (SCC):	3. SCC Units		on Cubic Feet	
4.	Maximum Hourly Rate: 1.780	5. Maximum	Annual Rate: 593	6.	Estimated Annual Activity Factor: N/A	
7.	Maximum % Sulfur: N/A	8. Maximum % Ash: N/A		9.	Million Btu per SCC Unit: 1,000 (LHV), nominal	
10.	. Segment Comment:	•				
Se	gment Description and Ra	ite: Segment o	f			
1.	1. Segment Description (Process/Fuel Type):					
2.	Source Classification Code	e (SCC):	3. SCC Units	:		
	M i II l D	[ ] ( ·	A 1 D - 4	Tz	That I A a star is	
4.	Maximum Hourly Rate:	5. Maximum	Annual Rate:	6.	Estimated Annual Activity Factor:	
7.	Maximum % Sulfur:	8. Maximum % Ash:		9.	Million Btu per SCC Unit:	
10.	. Segment Comment:			1	·	

DEP Form No. 62-210.900(1) – Form Effective: 3/16/08

Section [1]

of [2]

# E. EMISSIONS UNIT POLLUTANTS

# List of Pollutants Emitted by Emissions Unit

	mitted by Emissions Unit		<b>,</b> , , , , , , , , , , , , , , , , , ,
1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
NO <sub>x</sub>	025		EL
VOC			EL .
со			EL
SO <sub>2</sub>			EL
PM			NS
PM <sub>10</sub>			NS
			_

# EMISSIONS UNIT INFORMATION Section [1] of [2]

POLLUTANT DETAIL INFORMATION
Page [1] of [12]

# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1 Ocential, Definated Lagitive, and Dasenne e	0 5 10 50	0.0		
1. Pollutant Emitted:	2. Total Percent Efficient	•		
NO <sub>x</sub>	N/.	A		
3. Potential Emissions:	4. Synth	netically Limited?		
	tons/year	es 🔯 No		
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable): N/A			
6. Emission Factor: TV Permit Condition A.	11.	7. Emissions		
o. Emission rector. I v I of this condition is		Method Code:		
Reference:		0		
· · · · · · · · · · · · · · · · · · ·				
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month	Period: N/A		
Tons/year N/A	From:	To:		
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitori	ng Period:		
Tons/year <b>N/A</b>	☐ 5 years ☐ 10 ye	ears N/A		
10. Calculation of Emissions:				
10. Calculation of Elimosions.				
	<b>\</b>			
11. Potential, Fugitive, and Actual Emissions Comment:				
The second of and review Billionion C	~ ==== n · · · · · · · · · · · · · · · ·			

DEP Form No. 62-210.900(1) – Form Effective: 3/16/08

#### **EMISSIONS UNIT INFORMATION** Section [1] of [2]

POLLUTANT DETAIL INFORMATION Page [2] of [12]

# F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -**ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions 1 of 2

1.	Basis for Allowable Emissions Code: RULE	2.	Future Effective Date of Allowable Emissions: N/A
3.	Allowable Emissions and Units: 9.0 ppmvd @ 15-percent oxygen (24-hour block average)	4.	Equivalent Allowable Emissions: <b>64.1</b> lb/hour <b>280.8</b> tons/year
5.	Method of Compliance: NO <sub>x</sub> CEMS		
6.	Allowable Emissions Comment (Description of Operating Method):		
ı	Rule 62-212.400(10)(b), F.A.C. – Best Available Control Technology (BACT)		
	Permit No. 1130168-010-AV, Condition A.	.11.	

# Allowable Emissions 2 of 2

Basis for Allowable Emissions Code: <b>RULE</b>	2. Future Effective Date of Allowable Emissions: N/A	
Allowable Emissions and Units: 64.1 lb/hr	4. Equivalent Allowable Emissions: 64.1 lb/hour 280.8 tons/year	
5. Method of Compliance: EPA Reference Methods 7E and 19 (Initial stack test only)		
. Allowable Emissions Comment (Description of Operating Method):		
Rule 62-212.400(10)(b), F.A.C. – Best Available Control Technology (BACT)		
Permit No. 1130168-010-AV, Condition A	.11.	
	Allowable Emissions and Units: 64.1 lb/hr  Method of Compliance: EPA Reference Methods 7E and 19 (Initial Allowable Emissions Comment (Description)	

DEP Form No. 62-210.900(1) - Form

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#### **EMISSIONS UNIT INFORMATION** Section [1] of [2]

POLLUTANT DETAIL INFORMATION Page [3] of [12]

# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential Estimated Fugitive and Raseline & Projected Actual Emissions

1 Otential, Estimated Fugitive, and Baseinte 6	t 1 To ected Tietual Billio	310113		
1. Pollutant Emitted:	2. Total Percent Efficie	ency of Control:		
VOC	<b>N</b> /.	A		
3. Potential Emissions:	4. Syntl	netically Limited?		
	tons/year	es 🛛 No		
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable): N/A			
6. Emission Factor: TV Permit Condition A.	13.	7. Emissions		
Reference:		Method Code: 0		
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month	Period: N/A		
Tons/year N/A	From:	Го:		
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitori	ng Period:		
Tons/year N/A	☐ 5 years ☐ 10 ye	ears N/A		
10. Calculation of Emissions:				
	•			
11. Potential, Fugitive, and Actual Emissions Comment:				

DEP Form No. 62-210.900(1) - Form

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#### EMISSIONS UNIT INFORMATION POLLUTANT DETAIL INFORMATION Section [1] of [2] Page [4] of [12]

# F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions: N/A
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
1.4 ppm	<b>2.9</b> lb/hour <b>12.7</b> tons/year
5 Method of Compliance:	<u> </u>

Method of Compliance: EPA Reference Methods 3, 18, 25, or 25A (if required)

6. Allowable Emissions Comment (Description of Operating Method):

Rule 62-212.400(10)(b), F.A.C. – Best Available Control Technology (BACT)

Permit No. 1130168-010-AV, Condition A.13.

Compliance with the VOC emission limit is assumed provided the allowable CO emission limits are achieved.

# Allowable Emissions Allowable Emissions 2 of 2

Basis for Allowable Emissions Code:     RULE	2. Future Effective Date of Allowable Emissions: N/A
3. Allowable Emissions and Units: 2.9 lb/hr	4. Equivalent Allowable Emissions: 2.9 lb/hour 12.7 tons/year

5. Method of Compliance:

EPA Reference Methods 3, 18, 25, or 25A and 19 (if required)

6. Allowable Emissions Comment (Description of Operating Method):

Rule 62-212.400(10)(b), F.A.C. – Best Available Control Technology (BACT)

Permit No. 1130168-010-AV, Condition A.13.

Compliance with the VOC emission limit is assumed provided the allowable CO emission limits are achieved.

DEP Form No. 62-210.900(1) - Form Effective: 3/16/08

# EMISSIONS UNIT INFORMATION Section [1] of [2]

POLLUTANT DETAIL INFORMATION
Page [5] of [12]

# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted:	2. Total Percent Efficiency of Control: N/A				
3. Potential Emissions: 29 lb/hour 127.0	4. Synthet tons/year Yes	tically Limited?			
5. Range of Estimated Fugitive Emissions (as applicable): N/A to tons/year					
6. Emission Factor: TV Permit Condition A.  Reference:	12. 7	7. Emissions Method Code:  0			
8.a. Baseline Actual Emissions (if required): Tons/year N/A	8.b. Baseline 24-month Po				
9.a. Projected Actual Emissions (if required): Tons/year N/A	9.b. Projected Monitoring Period:  ☐ 5 years ☐ 10 years N/A				
10. Calculation of Emissions:					
11. Potential, Fugitive, and Actual Emissions Comment:					

DEP Form No. 62-210.900(1) – Form Effective: 3/16/08

# EMISSIONS UNIT INFORMATION Section [1] of [2]

POLLUTANT DETAIL INFORMATION
Page [6] of [12]

# F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions 1 of 2

1.	Basis for Allowable Emissions Code: RULE	2.	Future Effective Date of Allowable Emissions: N/A		
3.	Allowable Emissions and Units: 9 ppmvd	4.	Equivalent Allowable Emissions: 29 lb/hour 127.0 tons/year		
5.	Method of Compliance: EPA Reference Method 10 (annual if CT-1 operates > 400 hours per year)				
6.	Allowable Emissions Comment (Description of Operating Method):  Rule 62-212.400(10)(b), F.A.C. – Best Available Control Technology (BACT)				
	Permit No. 1130168-010-AV, Condition A.12.				

### Allowable Emissions 2 of 2

1.	Basis for Allowable Emissions Code: RULE	2.	Future Effective Date of Allowable Emissions: N/A		
3.	Allowable Emissions and Units: 29 lb/hr	4.	Equivalent Allowable Emissions: 29 lb/hour 127.0 tons/year		
5.	Method of Compliance:				
	EPA Reference Methods 10 and 19 (annual if CT-1 operates > 400 hours per year)				
6.	Allowable Emissions Comment (Description of Operating Method):				
	Rule 62-212.400(10)(b), F.A.C. – Best Available Control Technology (BACT)				
	Permit No. 1130168-010-AV, Condition A.12.				
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DEP Form No. 62-210.900(1) – Form Effective: 3/16/08

## EMISSIONS UNIT INFORMATION Section [1] of [2]

POLLUTANT DETAIL INFORMATION
Page [7] of [12]

# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:	
SO <sub>2</sub>	N/A	
3. Potential Emissions:	4. Synthetically Limited?	
10.2 lb/hour 44.7	tons/year Yes No	
5. Range of Estimated Fugitive Emissions (a to tons/year	s applicable): N/A	
6. Emission Factor: Mass Balance	7. Emissions	
Reference:	Method Code:	
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month Period: N/A	
Tons/year N/A	From: To:	
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitoring Period:	
Tons/year N/A	5 years 10 years N/A	
10. Calculation of Emissions:		
Hourly $SO_2 = (2.0 \text{ grains S/100 ft}^3 \text{ NG}) \times (\text{ft}^3 \text{ NG/1,000 Btu}) \times (1,780 \times 10^6 \text{ Btu/hr}) \times (1 \text{ lb S/7,000 grains S}) \times (64 \text{ lb SO}_2/32 \text{ lb S}) = 10.2 \text{ lb/hr}$		
Annual $SO_2 = (10.2 \text{ lb/hr}) \times (8,760 \text{ hr/yr}) \times (1 \text{ ton/2,000 lb}) = 44.7 \text{ tpy}$		
11. Potential, Fugitive, and Actual Emissions C	omment:	
l .		

#### **EMISSIONS UNIT INFORMATION** Section [1] of [2]

POLLUTANT DETAIL INFORMATION Page [8] of [12]

#### F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -**ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

1.	Basis for Allowable Emissions Code: RULE	Future Effective Date of Allowable     Emissions: N/A
3.	Allowable Emissions and Units:  2.0 grain S/100 ft <sup>3</sup> natural gas	4. Equivalent Allowable Emissions:  10.2 lb/hour  44.7 tons/year
5.	Method of Compliance: Use of pipeline natural gas	
6.	Allowable Emissions Comment (Descriptio	n of Operating Method):
	Rule 62-212.400(10)(b), F.A.C. – Best Available Control Technology (BACT)	
	Permit No. 1130168-010-AV, Condition A	1.14.

#### Allowable Emissions of

1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:	
6.	Allowable Emissions Comment (Description	of Operating Method):

DEP Form No. 62-210.900(1) - Form

Y:\GDP-12\CALPINE\SNTAROSA-TTLVAPP.DOCX--051112 27 **Effective: 3/16/08** 

POLLUTANT DETAIL INFORMATION
Page [9] of [12]

# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:	
PM (filterable)	N/A	
3. Potential Emissions:	4. Syr	thetically Limited?
<b>9.1</b> lb/hour <b>39.9</b>	tons/year $\square$	Yes No
5. Range of Estimated Fugitive Emissions (as	applicable): N/A	
to tons/year	<u> </u>	
6. Emission Factor: 0.0051 lb/10 <sup>6</sup> Btu		7. Emissions
Reference: GE Data		Method Code:
	8.b. Baseline 24-mon	
8.a. Baseline Actual Emissions (if required): Tons/year N/A		
·	From:	To:
9.a. Projected Actual Emissions (if required):	9.b. Projected Monito	- C
Tons/year N/A	☐ 5 years ☐ 10	years N/A
10. Calculation of Emissions:		
Hourly PM = $(0.0051 \text{ lb/}10^6 \text{ Btu}) \times (1,780)$	$\times 10^6 \text{ Rtu/hr}) = 9.1 \text{ lb/}$	hr
1104119 1111 (0.0031 15/10 1543) (19/00	To Builty 3.110	***
Annual PM = (9.1 lb/hr) × (8,760 hr/yr) ×	(1  ton/2,000 lb) = 39.9	tpy
11. Potential, Fugitive, and Actual Emissions C	omment:	
PM emission rates represent filterable PM only.		

## EMISSIONS UNIT INFORMATION Section [1] of [2]

POLLUTANT DETAIL INFORMATION Page [10] of [12]

# F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

of Allowable	
Emissions: 39.9 tons/year	
year)	
Rule 62-212.400(10)(b), F.A.C. – Best Available Control Technology (BACT)	
у У	

### Allowable Emissions of

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:   lb/hour
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description	n of	Operating Method):

POLLUTANT DETAIL INFORMATION
Page [11] of [12]

# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted:  PM <sub>10</sub> (filterable + condensable)	2. Total Percent Efficiency of Control:  N/A
3. Potential Emissions: 18.2 lb/hour 79.8	4. Synthetically Limited? tons/year
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable): N/A
6. Emission Factor: 0.0102 lb/10 <sup>6</sup> Btu	7. Emissions Method Code:
Reference: GE Data	5
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month Period: N/A
Tons/year N/A	From: To:
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitoring Period:
Tons/year N/A	5 years 10 years N/A
Filterable and condensable PM <sub>10</sub> emission  Hourly PM <sub>10</sub> = (0.0102 lb/10 <sup>6</sup> Btu) × (1,78  Annual PM <sub>10</sub> = (18.2 lb/hr) × (8,760 hr/yr	$0 \times 10^6 \text{ Btu/hr}) = 18.2 \text{ lb/hr}$
11. Potential, Fugitive, and Actual Emissions Copy PM <sub>10</sub> emission rates represent filterable a	

## EMISSIONS UNIT INFORMATION Section [1] of [2]

POLLUTANT DETAIL INFORMATION
Page [12] of [12]

# F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions 1 of 1

1.	Basis for Allowable Emissions Code: RULE	2.	Future Effective Dat Emissions: N/A	e of Allowable
3.	Allowable Emissions and Units: 10% Opacity	4.	Equivalent Allowabl 18.2 lb/hour	le Emissions: 79.8 tons/year
5.	Method of Compliance: EPA Reference Method 9 (annual if CT-1	оре	rates > 400 hours pe	r year)
6.	Allowable Emissions Comment (Descriptio	n of	Operating Method):	
	Rule 62-212.400(10)(b), F.A.C. – Best Available Control Technology (BACT)			
	Permit No. 1130168-010-AV, Condition A	.15.		

#### Allowable Emissions of

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description	of (	Operating Method):

## EMISSIONS UNIT INFORMATION Section [1] of [2]

#### G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1 Visible Emissions Subtype: Basis for Allowable Opacity: Nule Rule **VE20** ☐ Other 3. Allowable Opacity: **Normal Conditions:** 10 % % **Exceptional Conditions:** Maximum Period of Excess Opacity Allowed: min/hour 4. Method of Compliance: **EPA Method 9** 5. Visible Emissions Comment: Rule 62-212.400(10)(b), F.A.C. – Best Available Control Technology (BACT) Permit No. 1130168-010-AV, Condition A.15. Visible Emissions Limitation: Visible Emissions Limitation Visible Emissions Subtype: Basis for Allowable Opacity: □ Rule ☐ Other 3. Allowable Opacity: **Normal Conditions:** % **Exceptional Conditions:** % Maximum Period of Excess Opacity Allowed: min/hour 4. Method of Compliance: **Visible Emissions Comment:** 

**Section** [1] of [2]

#### H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 2

1. Parameter Code:	2. Pollutant(s):
EM	NO <sub>x</sub>
3. CMS Requirement:	⊠ Rule  ☐ Other
4. Monitor Information	
Manufacturer: Rosemount Analytical	
Model Number: NGA CLD	Serial Number: U1008105
5. Installation Date:	6. Performance Specification Test Date:
April 2012	Planned May 2012
7. Continuous Monitor Comment:	
	D 140 GED D 404 (GAID)
Required by 40 CFR Part 75 (Acid Rain	Program) and 40 CFR Part 96 (CAIR).
Permit No. 1130168-010-AV, Condition A	A 33.
Termit 110. 1130100 010 111, Condition 1	
Continuous Monitoring System: Continuous	Monitor 2 of 2
1. Parameter Code:	2. Pollutant(s):
O2	N/A
3. CMS Requirement:	⊠ Rule ☐ Other
4. Monitor Information	
Manufacturer: Rosemount Analytical	
Model Number: MLT	Serial Number: 30061481173
5. Installation Date:	6. Performance Specification Test Date:
May 2002	May 2002
7. Continuous Monitor Comment:	
Description of the second seco	Description of the control of the co
Required by 40 CFR Part 75 (Acid Rain	rrogram) and 40 CFR Part 96 (CAIR).
Permit No. 1130168-010-AV, Condition A	<b>.</b> 33.
2 of mic 100, 1100100 Oto-71 v, Condition 2	

Section [1]

of [2]

#### I. EMISSIONS UNIT ADDITIONAL INFORMATION

## Additional Requirements for All Applications, Except as Otherwise Stated

1.	Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  Attached, Document ID: Attachment C Previously Submitted, Date:
2.	Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  Attached, Document ID: Not Applicable
3.	Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  Attached, Document ID: Attachment L Not Applicable
4.	Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  Attached, Document ID: Attachment M Previously Submitted, Date  Not Applicable (construction application)
5.	Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  Attached, Document ID: Previously Submitted, Date  Not Applicable
6.	Compliance Demonstration Reports/Records:  Attached, Document ID:  Test Date(s)/Pollutant(s) Tested:
	Previously Submitted, Date: 08/31/11
	Test Date(s)/Pollutant(s) Tested: 07/21/11 / CO and VE
	To be Submitted, Date (if known):  Test Date(s)/Pollutant(s) Tested:  Not Applicable
	Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7.	Other Information Required by Rule or Statute:  Attached, Document ID: Not Applicable

DEP Form No. 62-210.900(1) - Form

Y:\GDP-12\CALPINE\SNTAROSA-TTLVAPP.DOCX—051612 Effective: 3/16/08 34

Section [1]

of [2]

## I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications NOT APPLICABLE
1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7),
F.A.C.; 40 CFR 63.43(d) and (e)):
Attached, Document ID: Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-
212.500(4)(f), F.A.C.):
Attached, Document ID: Not Applicable
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities
only)  Attached, Document ID:  Not Applicable
Additional Requirements for Title V Air Operation Permit Applications
1. Identification of Applicable Requirements:
Attached, Document ID: Attachment G Not Applicable
2. Compliance Assurance Monitoring:
Attached, Document ID: Not Applicable
3. Alternative Methods of Operation:
Attached, Document ID: Not Applicable
4. Alternative Modes of Operation (Emissions Trading):
☐ Attached, Document ID: Not Applicable
Additional Requirements Comment

Section [2]

of [2]

#### A. GENERAL EMISSIONS UNIT INFORMATION

#### **Title V Air Operation Permit Emissions Unit Classification**

<ul> <li>☐ The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.</li> <li>☐ The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.</li> <li>Emissions Unit Description and Status</li> <li>1. Type of Emissions Unit Addressed in this Section: (Check one)</li> <li>☐ This Emissions Unit Information Section addresses, as a single emissions unit, a</li> </ul>
unregulated emissions unit.  Emissions Unit Description and Status  1. Type of Emissions Unit Addressed in this Section: (Check one)
1. Type of Emissions Unit Addressed in this Section: (Check one)
This Emissions Unit Information Section addresses, as a single emissions unit, a
single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only
<ol> <li>Description of Emissions Unit Addressed in this Section:</li> <li>4-Cell Mechanical Draft Cooling Tower</li> </ol>
3. Emissions Unit Identification Number: 003
4. Emissions Unit 5. Commence 6. Initial Startup 7. Emissions Unit
Status Code: Construction Date: Major Group
A Date: N/A N/A SIC Code: 49
8. Federal Program Applicability: (Check all that apply)
Acid Rain Unit
CAIR Unit
☐ CAIR Unit ☐ Hg Budget Unit
Hg Budget Unit  9. Package Unit: N/A
Hg Budget Unit  9. Package Unit: N/A Manufacturer: Model Number:
Hg Budget Unit  9. Package Unit: N/A Manufacturer: Model Number:  10. Generator Nameplate Rating: N/A MW
Hg Budget Unit  9. Package Unit: N/A Manufacturer: Model Number:
Hg Budget Unit  9. Package Unit: N/A Manufacturer: Model Number:  10. Generator Nameplate Rating: N/A MW

36

DEP Form No. 62-210.900(1) - Form

Effective: 3/16/08

**Section** [2] **of** [2]

<b>Emissions</b>	Unit	Control	Equi	pmen	t/Met	hod:	Control	1	of	1

1.	Control Equipment/Method Description:
	Mist (Drift) Eliminators – Low Velocity (V<250 ft/min)
	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
$\overline{2}$ .	Control Device or Method Code: 015
<u>E</u> 1	missions Unit Control Equipment/Method: Control of
1.	Control Equipment/Method Description:
$\frac{1}{2}$	Control Device or Method Code:
E	missions Unit Control Equipment/Method: Control of
$\int_{1}^{\frac{2\pi}{2}}$	Control Equipment/Method Description:
1	- in the second of the second
<u>_</u>	
2.	Control Device or Method Code:
<u>E</u> 1	missions Unit Control Equipment/Method: Control of
$\overline{1}$ .	Control Equipment/Method Description:
$\frac{1}{2}$	Control Device or Method Code:

## EMISSIONS UNIT INFORMATION Section [2] of [2]

#### **B. EMISSIONS UNIT CAPACITY INFORMATION**

(Optional for unregulated emissions units.)
NOT APPLICABLE

#### **Emissions Unit Operating Capacity and Schedule**

1.	Maximum Process or Throug	hput Rate:	
2.	Maximum Production Rate:		
3.	Maximum Heat Input Rate:	million Btu/hr	
4.	Maximum Incineration Rate:	pounds/hr	
		tons/day	
5.	Requested Maximum Operation	ng Schedule:	
ļ		hours/day	days/week
		weeks/year	hours/year
6.	Operating Capacity/Schedule	Comment:	

Section [2] of [2]

### C. EMISSION POINT (STACK/VENT) INFORMATION

### (Optional for unregulated emissions units.) NOT APPLICABLE

#### **Emission Point Description and Type**

1. Identification of Point on Flow Diagram:	Plot Plan or	2. Emission Point	Type Code:
3. Descriptions of Emission	Points Comprising	g this Emissions Unit	for VE Tracking:
4. ID Numbers or Descriptio	ns of Emission U	nits with this Emission	n Point in Common:
5. Discharge Type Code:	6. Stack Height	t: feet	7. Exit Diameter: feet
8. Exit Temperature: °F	ļ	metric Flow Rate:	10. Water Vapor: %
11. Maximum Dry Standard F dscfm	low Rate:	12. Nonstack Emissi	on Point Height: feet
13. Emission Point UTM Coo Zone: East (km): North (km)		14. Emission Point I Latitude (DD/M Longitude (DD/I	
15. Emission Point Comment:			

DEP Form No. 62-210.900(1) - Form

Y:\GDP-12\CALPINE\SNTAROSA-TTLVAPP.DOCX-051112 Effective: 3/16/08 39

Section [2]

of [2]

### D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1.	Segment Description (Prod	cess/Fuel Type):			
	Cooling Tower, Process Crecirculation rate.	Cooling, Mecha	nical Draft. Cod	oling	tower water
2.	Source Classification Code 3-85-001-01	e (SCC):	3. SCC Units		lion gallons
4.	Maximum Hourly Rate: <b>3.6</b>	5. Maximum 31,	Annual Rate: 536	6.	Estimated Annual Activity Factor: N/A
7.	Maximum % Sulfur: N/A	8. Maximum N	% Ash: / <b>A</b>	9.	Million Btu per SCC Unit: N/A
10.	Segment Comment:	· · · · · · · · · · · · · · · · · · ·			
Se	gment Description and Ra		of		
1.	Segment Description (Proc	cess/Fuel Type):			
2.	Source Classification Code	e (SCC):	3. SCC Units		
4.	Maximum Hourly Rate:	5. Maximum	Annual Rate:	6.	Estimated Annual Activity Factor:
7.	Maximum % Sulfur:	8. Maximum	% Ash:	9.	Million Btu per SCC Unit:
10.	Segment Comment:	<u> </u>		<u>+-</u> -	

**Section** [2] **of** [2]

#### E. EMISSIONS UNIT POLLUTANTS

### List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	Primary Control     Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM/PM <sub>10</sub>	015	N/A	NS

#### **EMISSIONS UNIT INFORMATION** Section [2] of [2]

POLLUTANT DETAIL INFORMATION Page [1] of [2]

### F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.) NOT APPLICABLE

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline &	Projected Actual Emissions
1. Pollutant Emitted:	2. Total Percent Efficiency of Control:
3. Potential Emissions: lb/hour	4. Synthetically Limited? tons/year Yes No
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable):
6. Emission Factor: Reference:	7. Emissions Method Code:
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period:  ☐ 5 years ☐ 10 years
10. Calculation of Emissions:	
11. Potential, Fugitive, and Actual Emissions Co	omment:

DEP Form No. 62-210.900(1) - Form

Y:\GDP-12\CALPINE\SNTAROSA-TTLVAPP.DOCX-051112 Effective: 3/16/08 42

## EMISSIONS UNIT INFORMATION Section [2] of [2]

POLLUTANT DETAIL INFORMATION
Page [2] of [2]

Future Effective Date of Allowable

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation. NOT APPLICABLE

Al	lowable Emissions Allowable Emissions	ot	
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description	of (	Operating Method):

#### Allowable Emissions of

1 Basis for Allowable Emissions Code:

	Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Descript	tion of Operating Method):

#### **EMISSIONS UNIT INFORMATION**

Section [2] of [2]

#### G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

NOT APPLICABLE

<u> Isible Emissions Limitation:</u> V	isible Emissions Limitation of
. Visible Emissions Subtype:	2. Basis for Allowable Opacity:  Rule    Other
<ul><li>Allowable Opacity:</li><li>Normal Conditions:</li><li>Maximum Period of Excess Opacition</li></ul>	% Exceptional Conditions: % min/hour
Method of Compliance:	
5. Visible Emissions Comment:	
Visible Emissions Limitation: V	isible Emissions Limitation of
	isible Emissions Limitation of  2. Basis for Allowable Opacity:  Rule   Other
1. Visible Emissions Subtype:	2. Basis for Allowable Opacity:  Rule Other  % Exceptional Conditions: %
Normal Conditions:	2. Basis for Allowable Opacity:  Rule Other  % Exceptional Conditions: %

Section [2]

of [2]

#### H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

<u>C</u> 0	inimuous Monitoring System: Continuous	Monitor of NOT APPLICABLE
1.	Parameter Code:	2. Pollutant(s):
3.	CMS Requirement:	Rule Other
4.	Monitor Information Manufacturer:	
	Model Number:	Serial Number:
5.	Installation Date:	6. Performance Specification Test Date:
<i>7</i> .	Continuous Monitor Comment:	-
<u>Co</u>	ntinuous Monitoring System: Continuous	Monitor of
	ntinuous Monitoring System: Continuous Parameter Code:	Monitor of  2. Pollutant(s):
1.		
1.	Parameter Code:  CMS Requirement:  Monitor Information  Manufacturer:	2. Pollutant(s):  Rule    Other
3. 4.	Parameter Code:  CMS Requirement:  Monitor Information  Manufacturer:  Model Number:	2. Pollutant(s):  Rule Other  Serial Number:
<ol> <li>3.</li> <li>4.</li> <li>5.</li> </ol>	Parameter Code:  CMS Requirement:  Monitor Information  Manufacturer:	2. Pollutant(s):  Rule    Other

Section [2]

[2] of

#### I. EMISSIONS UNIT ADDITIONAL INFORMATION

#### Additional Requirements for All Applications, Except as Otherwise Stated

1.	Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  Attached, Document ID: Attachment B Previously Submitted, Date:
2.	Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  Attached, Document ID:  Not Applicable
3.	Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  Attached, Document ID:  Not Applicable
4.	Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  Attached, Document ID: Previously Submitted, Date Not Applicable
5.	Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  Attached, Document ID: Previously Submitted, Date  Not Applicable
6.	Compliance Demonstration Reports/Records:  Attached, Document ID:  Test Date(s)/Pollutant(s) Tested:
	Previously Submitted, Date:  Test Date(s)/Pollutant(s) Tested:
	To be Submitted, Date (if known):  Test Date(s)/Pollutant(s) Tested:
	Not Applicable  Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7.	Other Information Required by Rule or Statute:  Attached, Document ID: Not Applicable

DEP Form No. 62-210.900(1) - Form

Y:\GDP-12\CALPINE\SNTAROSA-TTLVAPP.DOCX—051 112 Effective: 3/16/08 46

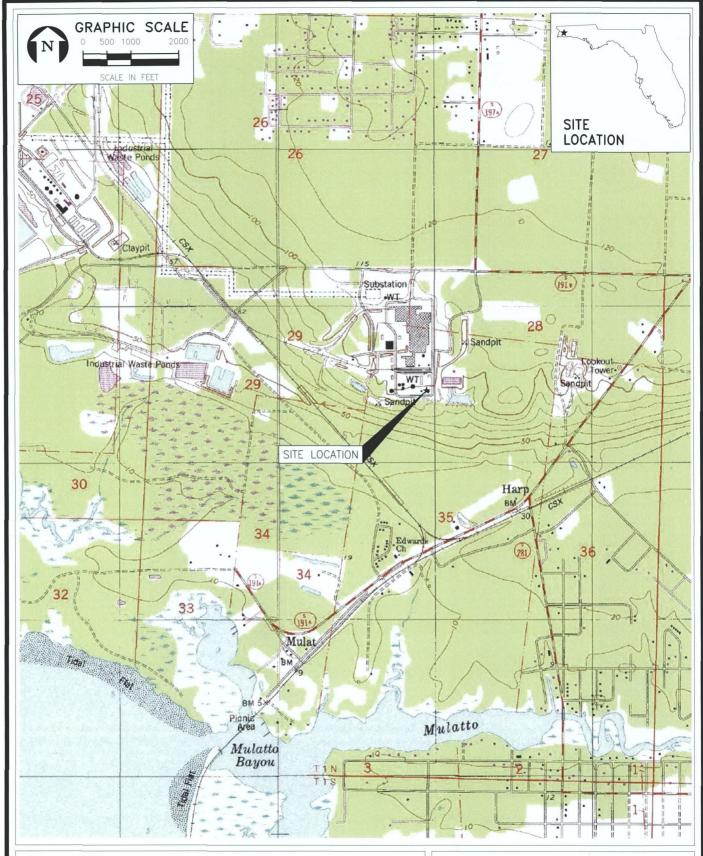
**Section** [2] **of** [2]

## I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications NOT APPLICABLE	
1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7),	
F.A.C.; 40 CFR 63.43(d) and (e)):	
Attached, Document ID: Not Applicable	
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.):	
Attached, Document ID: Not Applicable	
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities	
only)	
Attached, Document ID: Not Applicable	
Additional Requirements for Title V Air Operation Permit Applications	
1. Identification of Applicable Requirements:	
Attached, Document ID: Attachment G Not Applicable	
2. Compliance Assurance Monitoring:	
Attached, Document ID: Not Applicable	
3. Alternative Methods of Operation:	
Attached, Document ID: Not Applicable	
4. Alternative Modes of Operation (Emissions Trading):	
Attached, Document ID: Not Applicable	
Additional Requirements Comment	

# ATTACHMENT A FACILITY LOCATION MAP





ATTACHMENT A.

**FACILITY LOCATION MAP** 

Sources: USGS Quads: Milton South and Pace, FL., 1987; ECT, 2012.



ATTACHMENT B
FACILITY PLOT PLAN



ATTACHMENT B.

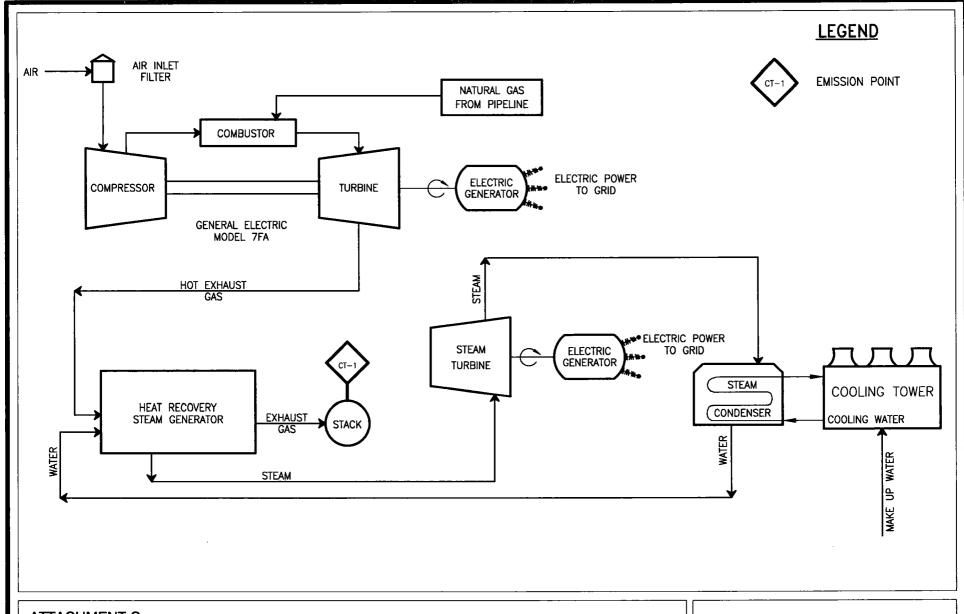
**FACILITY PLOT PLAN** 

Source: ECT, 2012.



# ATTACHMENT C PROCESS FLOW DIAGRAM





ATTACHMENT C.

PROCESS FLOW DIAGRAM

Source: ECT, 2012.



## ATTACHMENT D

PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER



#### ATTACHMENT D

# SANTA ROSA ENERGY CENTER PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

Unconfined particulate matter (PM) emissions that may result from operations at the SREC include:

- Vehicular traffic on paved and unpaved roads.
- Wind-blown dust from yard areas.
- Periodic abrasive blasting.

The following techniques may be used to control unconfined PM emissions on an asneeded basis:

- Paving and maintenance of roads, parking areas, and yards.
- Chemical (dust suppressants) or water application to:
  - o Unpaved roads.
  - o Unpaved yard areas.
- Removal of PM from roads and other paved areas to prevent reentrainment and from buildings or work areas to prevent airborne particulate.
- Landscaping or planting of vegetation.
- Confining abrasive blasting where possible.
- Other techniques, as necessary

# ATTACHMENT E LIST OF INSIGNIFICANT ACTIVITIES

#### ATTACHMENT E

#### SANTA ROSA ENERGY CENTER LIST OF INSIGNIFICANT ACTIVITIES

- 1. Natural gas preheater: 2.6-million-British-thermal-units-per-hour (MMBtu/hr) heat input
- 2. Lubricating and hydraulic oil container vents
- 3. Vacuum pumps for sample collection
- 4. Maintenance welding
- 5. Storage of water treatment chemicals
- 6. Water treatment equipment: reverse osmosis, demineralization, pH control, addition of anticorrosion and antiscaling agents, and oil/water separators
- 7. Maintenance of grounds and lawns
- 8. Emergency fire water pump 146-horsepower diesel engine

# ATTACHMENT F LIST OF UNREGULATED EMISSIONS UNITS



#### ATTACHMENT F

# SANTA ROSA ENERGY CENTER LIST OF UNREGULATED EMISSION UNITS

1. Mechanical draft cooling tower

# ATTACHMENT G IDENTIFICATION OF APPLICABLE REQUIREMENTS



#### ATTACHMENT G

## SANTA ROSA ENERGY CENTER IDENTIFICATION OF APPLICABLE REQUIREMENTS

#### A. FACILITYWIDE REQUIREMENTS

#### FEDERAL:

40 CFR 82: Protection of Stratospheric Ozone

40 CFR 82, Subpart F: Recycling and Emissions Reduction

#### STATE:

#### Chapter 62-4, F.A.C.: Permits, effective 03/16/08

62-4.030, F.A.C.: General Prohibition

62-4.040, F.A.C.: Exemptions

62-4.050, F.A.C.: Procedure to Obtain Permits; Application

62-4.060, F.A.C.: Consultation

62-4.070, F.A.C.: Standards for Issuing or Denying Permits; Issuance; De-

nial

62-4.080, F.A.C.: Modification of Permit Conditions

62-4.090, F.A.C.: Renewals

62-4.100, F.A.C.: Suspension and Revocation 62-4.110, F.A.C.: Financial Responsibility

62-4.120, F.A.C.: Transfer of Permits

62-4.130, F.A.C.: Plant Operation – Problems

62-4.150, F.A.C.: Review

62-4.160, F.A.C.: Permit Conditions 62-4.210, F.A.C.: Construction Permits

62-4.220, F.A.C.: Operation Permit for New Sources

## <u>Chapter 62-210, F.A.C.: Stationary Sources - General Requirements</u>, effective 03/28/12

62-210.300, F.A.C.: Permits Required

62-210.300(1), F.A.C.: Air Construction Permits 62-210.300(2), F.A.C.: Air Operation Permits

62-210.300(3), F.A.C.: Exemptions from Permitting

62-210.300(5), F.A.C.: Notification of Startup

62-210.300(6), F.A.C.: Emissions Unit Reclassification

62-210.300(7), F.A.C.: Transfer of Air Permits

62-210.350, F.A.C.: Public Notice and Comment

62-210.350(1), F.A.C.: Public Notice of Proposed Agency Action

## SANTA ROSA ENERGY CENTER IDENTIFICATION OF APPLICABLE REQUIREMENTS

62-210.350(2), F.A.C.: Additional Public Notice Requirements for Emissions

Units Subject to Prevention of Significant Deterioration

or Nonattainment-Area Preconstruction Review

62-210.350(3), F.A.C.: Additional Public Notice Requirements for Sources Sub-

ject to Operation Permits for Title V Sources

62-210.360, F.A.C.: Administrative Permit Corrections and Amendments

62-210.370(2), F.A.C.: Computation of Emissions

62-210.370(3), F.A.C.: Annual Operating Report for Air Pollutant Emitting Fa-

cility

62-210.650, F.A.C.:

Circumvention

62-210.700, F.A.C.:

**Excess Emissions** 

62-210.900, F.A.C.:

Forms and Instructions

62-210.900(1), F.A.C.:

Application for Air Permit - Long Form, Form and In-

structions

62-210.900(5), F.A.C.:

Annual Operating Report for Air Pollutant Emitting Fa-

cility, Form and Instructions

62-210.900(7), F.A.C.:

Application for Transfer of Air Permit – Title V and

Non-Title V Source.

## <u>Chapter 62-212, F.A.C.: Stationary Sources - Preconstruction Review</u>, effective 03/28/12

62-212.300, F.A.C.: General Preconstruction Review Requirements 62-212.400, F.A.C.: Prevention of Significant Deterioration (PSD) 62-212.500, F.A.C.: Preconstruction Review for Nonattainment Areas 62-212.720, F.A.C.: Actuals Plantwide Applicability Limits (PALS)

## Chapter 62-213, F.A.C.: Operation Permits for Major Sources of Air Pollution, effective 02/06/12

62-213.205, F.A.C.: Annual Emissions Fee

62-213.400, F.A.C.: Permits and Permit Revisions Required

62-213.405, F.A.C.: Concurrent Processing of Permit Applications

62-213.410, F.A.C.: Changes without Permit Revision

62-213.412, F.A.C.: Immediate Implementation Pending Revision Process

62-213.415, F.A.C.: Trading of Emissions within a Source

62-213.420, F.A.C.: Permit Applications

## SANTA ROSA ENERGY CENTER IDENTIFICATION OF APPLICABLE REQUIREMENTS

62-213.430, F.A.C.: Permit Issuance, Renewal, and Revision

62-213.440, F.A.C.: Permit Content

62-213.450, F.A.C.: Permit Review by EPA and Affected States

62-213.460, F.A.C.: Permit Shield

62-213.900, F.A.C.: Forms and Instructions

62-213.900(1), F.A.C.: Major Air Pollution Source Annual Emissions Fee Form

62-213.900(7), F.A.C.: Statement of Compliance Form

62-213.900(8), F.A.C.: Responsible Official Notification Form

## <u>Chapter 62-256, F.A.C.: Open Burning and Frost Protection Fires, effective</u> 10/06/08

## <u>Chapter 62-296, F.A.C.: Stationary Sources - Emission Standards</u>, effective 02/06/12

62-296.320(2), F.A.C.: Objectionable Odor Prohibited

62-296.320(3), F.A.C.: Permitted Open Burning

62-296.320(4)(b), F.A.C.: General Visible Emissions Standard

62-296.320(4)(c), F.A.C.: Unconfined Emissions of Particulate Matter

## <u>Chapter 62-297, F.A.C.: Stationary Sources - Emissions Monitoring</u>, effective 02/06/12

62-297.310, F.A.C.: General Test Requirements

62-297.320, F.A.C.: Standards for Persons Engaged in Visible Emissions Ob-

servations

62-297.401, F.A.C.: Compliance Test Methods 62-297.440, F.A.C.: Supplementary Test Procedures

62-297.620, F.A.C.: Exceptions and Approval of Alternate Procedures and

Requirements

#### **MISCELLANEOUS:**

## <u>Chapter 28-106, F.A.C.: Decisions Determining Substantial Interests</u>, effective 12/24/07

## Chapter 62-110, F.A.C.: Exception to the Uniform Rules of Procedure, effective 07/01/98

## SANTA ROSA ENERGY CENTER IDENTIFICATION OF APPLICABLE REQUIREMENTS

#### B. COMBUSTION TURBINE NO. 1; EU ID NO. 001

#### **ACID RAIN PROGRAM (ARP)**

40 CFR 72	Permits Regulation
40 CFR 75	Continuous Emissions Monitoring
40 CFR 77	Excess Emissions
40 CFR 78	Appeal Procedures

#### **CLEAN AIR INTERSTATE RULE (CAIR)**

40 CFR 96	NO <sub>x</sub> Budget Trading Program and CAIR NO <sub>x</sub> and SO <sub>2</sub>
	Trading Programs for State Implementation Plans

#### NEW SOURCE PERFORMANCE STANDARDS

LW SOURCE PI	ERFURMANCE STANDARDS
40 CFR 60, Sub	part A: General Provisions
.7:	Notification and Recordkeeping
.8:	Performance Tests
.11:	Compliance with Standards and Maintenance Requirements
.12:	Circumvention
.13:	Monitoring Requirements
.19:	General Notification and Reporting Requirements

40 CFR 60, Sub	part GG: Standards of Performance for Stationary Gas Turbines
.330:	Applicability and Designation of Affected Facility
221.	Definitions

.331:	Delinitions
.332(a)(1):	Standard for Nitrogen Oxides
.333:	Standard for Sulfur Dioxide
.334(b),(c),(h),(i),(j):	Monitoring of Operations
.335:	Test Methods and Procedures

Rule 62-213.413, F.A.C.: Fast-Track Revision of Acid Rain Parts.

## Chapter 62-214, F.A.C.: Requirements for Sources Subject to the Federal Acid Rain Program, effective 03-11-10

Rule 62-296.470, F.A.C.: Implementation of Federal Clean Air Interstate Rule (CAIR).

FINAL Permit No: 1130168-010-AV, Section III., Subsection A, Permit Condition Nos. A.1 – A.42 [Please see Attachment I for requested changes to the current Title V Air Operation Permit]

## SANTA ROSA ENERGY CENTER IDENTIFICATION OF APPLICABLE REQUIREMENTS

#### C. <u>EMERGENCY FIRE WATER PUMP DIESEL ENGINE</u>

SREC includes one Cummins 146-horsepower (HP) diesel compression ignition engine, which is used drive an emergency firewater pump.

The emergency firewater pump Cummins diesel engine was manufactured after July 1, 2006, and, therefore, is subject to the applicable provisions of 40 CFR 60, Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines).

SREC is a minor or area source of hazardous air pollutants (HAPs). As a new stationary reciprocating internal combustion engine located at an area HAP source, the emergency firewater pump Cummins diesel engine is subject to the applicable requirements of 40 CFR 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants [NESHAPs] for Stationary Reciprocating Internal Combustion Engines). For new compression ignition reciprocating internal combustion engines, NESHAPs Subpart ZZZZ requires compliance with the applicable provisions of NSPS Subpart IIII.

# ATTACHMENT H COMPLIANCE REPORT

## SANTA ROSA ENERGY CENTER COMPLIANCE REPORT

Attachment G to this Title V air operation permit renewal application identifies the requirements that are applicable to the emission units that comprise the Santa Rosa Energy Center (SCREC).

A copy of the most recent SREC Annual Statement of Compliance – Title V Source is provided in this attachment.



Calpine Corporation Santa Rosa Energy Center 5001 Sterling Way Pace, FL 32571 (850) 995-2100 (Main) (850) 995-2150 (Fax)

February 21, 2012

Via Federal Express Tracking No. 7980 8320 2905

Florida Department of Environmental Protection Northwest District Air Resource Department 160 Governmental Center Pensacola, Florida 32502 (850) 595-8300 (phone)/850-595-8417 (fax)

RE: Annual Title V Compliance Statement Santa Rosa Energy Center Facility ID: 1130168

Please accept the attached Title V compliance statement for 2011 for the Santa Rosa Energy Center. Santa Rosa Energy Center is owned by Santa Rosa Energy Center, LLC and operated by Calpine Operating Services Company, Inc. As required by the permit, a copy of this certification is being submitted to Region IV of the Environmental Protection Agency.

If you have any technical questions, please contact Heidi Whidden at (713) 570-4829.

Sincerely,

Dana McNally General Manager

Responsible Official

Doe Menally

CC: US EPA—Region 4; (hard copy); Federal Express Number: 7932 5274 3273 ECMS—SharePoint Attachment



### **Department of Environmental Protection**

#### **Division of Air Resource Management**

#### STATEMENT OF COMPLIANCE - TITLE V SOURCE

×	Annual Requirement	☐ Transfer of Permit		Permanent Facility Shutdown
	RE	PORTING PERIOD*		REPORT DEADLINE**
	January 1 through	December 31 of 2011 (year)		3/1/2012
inc		must cover all conditions that were in a were added, deleted, or changed through, F.A.C.		
Facil	ity Owner/Company Name	e: Santa Rosa Energy Center, LLC		
Site 1	Name: Santa Rosa	Energy Center Facility ID No. 1050	221 Co	unty: <u>Santa Rosa</u>
сом	PLIANCE STATEMEN	T (Check only one of the following th	ree opti	ons)
<u>x</u> _	applicable, the Acid requirements associate	compliance with all terms and condition Rain Part, and there were no reported with any malfunction or breakdown ng systems during the reporting period i	able inc of proc	idents of deviations from applicable ess, fuel burning or emission contro
	applicable, the Acid R applicable requirement control equipment, or r	compliance with all terms and condition ain Part; however, there were one or s associated with malfunctions or brea monitoring systems during the reporting each incident of deviation, the following	more re akdowns period	portable incidents of deviations from of process, fuel burning or emission identified above, which were reported
	<ol> <li>Date of report pre</li> <li>Description of the</li> </ol>	viously submitted identifying the incide incident.	nt of de	viation.
	applicable, the Acid F reportable incidents of of process, fuel burning	ompliance with all terms and condition tain Part, EXCEPT those identified in deviations from applicable requirement g or emission control equipment, or make the way are reported to the Department. For the control equipment of the Department of the Department of the Department.	n the passocial control of the passocial contr	ages attached to this report and any ated with malfunctions or breakdowns g systems during the reporting period
	2. Specific permit co	entification number. Indition number (note whether the permination period).	it condit	ion has been added, deleted, or
		requirement of the permit condition.		
		mination of noncompliance (for monito e., recorded at least every 15 minutes, o	-	
	5. Beginning and end	ling dates of periods of noncompliance.	•	
	<ol> <li>Identification of the preventative meas</li> </ol>	ne probable cause of noncompliance and ures implemented.	d descrip	otion of corrective action or
	7. Dates of any repor	ts previously submitted identifying this	incident	t of noncompliance.

For each incident of deviation, as described in paragraph B. above, the following information is included:

Date of report previously submitted identifying the incident of deviation.

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DEP Form No. 62-213.900(7)

Description of the incident.

#### STATEMENT OF COMPLIANCE - TITLE V SOURCE

#### RESPONSIBLE OFFICIAL CERTIFICATION

I, the undersigned, am a responsible official (Title V air permit application or responsible official notification form on file with the Department) of the Title V source for which this document is being submitted. With respect to all matters other than Acid Rain program requirements, I hereby certify, based on the information and belief formed after reasonable inquiry, that the statements made and data contained in this document are true, accurate, and complete.

(Signature of Title V Source Responsible Official)		2-21-12
(Signature of Title V Source Responsible Official)		(Date)
Name: Dana McNally	Title:	General Manager

#### **DESIGNATED REPRESENTATIVE CERTIFICATION** (only applicable to Acid Rain source)

I, the undersigned, am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

(Signature of Acid Rain Source Pesignated Representative)		7	-21-12
(Signature of Acid Rain Source Pesignated Representative)			(Date)
Name: Dana McNally	Title:	General Manager	

{Note: Attachments, if required, are created by a responsible official or designated representative, as appropriate, and should consist of the information specified and any supporting records. Additional information may also be attached by a responsible official or designated representative when elaboration is required for clarity. This report is to be submitted to both the compliance authority (DEP district or local air program) and the U.S. Environmental Protection Agency(EPA) (U.S. EPA Region 4, Air and EPCRA Enforcement Branch, 61 Forsyth Street, Atlanta GA 30303).}

2

DEP Form No. 62-213.900(7)

Effective: 6-02-02

## REQUESTED CHANGES TO CURRENT TITLE V AIR OPERATION PERMIT

## SANTA ROSA ENERGY CENTER REQUESTED CHANGES TO CURRENT TITLE V PERMIT

• Revise Section III, Subsection A.16, to read (modifications have been underlined):

Excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Permitted excess emissions occurrences shall in no case exceed two hours (120 minutes) in any operating day except due to start-up except during either "cold start-up" to or shutdowns from cogeneration and/or combined-cycle plant operation. During cold startup to cogeneration and/or combined cycle operation, up to four hours (240 minutes) of excess emissions are allowed in any operating day. During shutdowns from cogeneration and/or combined cycle operation, up to three hours (180 minutes) of excess emissions are allowed in any operating day. The facility shall be permitted 366 start-up events per year. Cold start-up is defined as a startup to cogeneration and/or combined cycle operation following flame out of the combustion turbine with no mode 6 operation in the interim for a minimum of 48-hours (2880 minutes). An operating day is defined as a day (midnight to midnight) that includes operation.

The current Title V Permit allows for one start-up event per day (two hours for a "hot/warm" start and four hours for a "cold start"). To allow for market fluctuations and equipment failures, the facility requests the start-up event limits be based on a calendar year in lieu of a daily limit. Limiting the facility to 366 starts is equivalent to starting the plant under "hot/warm" conditions daily over a leap year.

Revise Section III, Subsection A.35, to read (modifications have been underlined):

"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..."

This request has been made to assist in CEMs standardization across Calpine's Florida assets. The requests language is pulled directly for the Auburndale Peaker Energy Center and Osprey Energy center Title V CEMS requirement (Permit ID: 1050334).

Add the emergency fire pump to Appendix I.

## SANTA ROSA ENERGY CENTER REQUESTED CHANGES TO CURRENT TITLE V PERMIT

• Add the following permit condition:

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.]

This request has been made to assist in CEMs standardization across Calpine's Florida assets. The requests language is pulled directly for the Auburndale Peaker Energy Center and Osprey Energy center Title V CEMS requirement (Permit ID: 1050334).

**ACID RAIN PART** 



## **Acid Rain Part Application**

For more information, see instructions and refer to 40 CFR 72.30, 72.31, and 74; and Chapter 62-214, F.A.C.

This submission is:	□ New	☐ ☐ Revised	Renewal
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#### STEP 1

Identify the source by plant name, state, and ORIS or plant code.

Santa Rosa Energy Center	Florida	55242
Plant name	State	ORIS/Plant Code

STEP 2 Enter the unit ID# for every Acid Rain unit at the Acid Rain source in column "a."

If unit a SO<sub>2</sub> Opt-in unit, enter "yes" in column "b".

For new units or SO<sub>2</sub> Opt-in units, enter the requested information in columns "d" and "e."

а	b	С	d	е	
Unit ID#	SO₂ Opt-in Unit? (Yes or No)	Unit will hold allowanc- es in accordance with 40 CFR 72.9(c)(1)	New or SO₂ Opt-in Units Commence Operation Date	New or SO₂ Opt-in Units  Monitor  Certification  Deadline	
CT-1	No	Yes	N/A	N/A	

#### Santa Rosa Energy Center

Plant Name (from STEP 1)

#### STEP 3

Read the standard requirements.

#### Acid Rain Part Requirements.

- (1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:
  - (i) Submit a complete Acid Rain Part application (including a compliance plan) under 40 CFR Part 72 and Rules 62-214.320 and 330, F.A.C., in accordance with the deadlines specified in Rule 62-214.320, F.A.C., and
  - (ii) Submit in a timely manner any supplemental information that the DEP determines is necessary in order to review an Acid Rain Part application and issue or deny an Acid Rain Part;
- The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:
  - (i) Operate the unit in compliance with a complete Acid Rain Part application or a superseding Acid Rain Part issued by the DEP; and
  - (ii) Have an Acid Rain Part.

#### Monitoring Requirements.

- (1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR Part 75, and Rule 62-214.420, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR Part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the
- (4) For applications including a SO<sub>2</sub> Opt-in unit, a monitoring plan for each SO<sub>2</sub> Opt-in unit must be submitted with this application pursuant to 40 CFR 74.14(a). For renewal applications for SO<sub>2</sub> Opt-in units include an updated monitoring plan if applicable under 40 CFR 75.53(b).

#### Sulfur Dioxide Requirements.

- (1) The owners and operators of each source and each Acid Rain unit at the source shall:
  - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)). or in the compliance subaccount of another Acid Rain unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
  - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of
- (3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
  - (i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
  - (ii) Starting on the later of January 1, 2000, or the deadline for monitor certification under 40 CFR Part 75, an Acid Rain unit under 40 CFR
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain Part application, the Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

#### Excess Emissions Requirements.

- (1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77.
- (2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall:
  - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR Part 77; and
  - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR Part 77.

#### Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the EPA or the DEP:
  - (i) The certificate of representation for the designated representative for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
  - (ii) All emissions monitoring information, in accordance with 40 CFR Part 75, provided that to the extent that 40 CFR Part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply;
  - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program;

DEP Form No. 62-210.900(1)(a) - Form

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STEP 3. Continued.

Santa Ro	sa Ene	rav C	enter
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Plant Name (from STEP 1)

#### Recordkeeping and Reporting Requirements (cont)

- (iv) Copies of all documents used to complete an Acid Rain Part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR Part 72, Subpart I, and 40 CFR Part 75.

#### Liability.

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.
   (5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.
- (6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO<sub>x</sub> averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR Part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative
- (7) Each violation of a provision of 40 CFR Parts 72, 73, 74, 75, 76, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

#### Effect on Other Authorities.

No provision of the Acid Rain Program, an Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7or 72.8 shall be construed as:

- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
- (3) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, including any prudence review requirements under such state law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or, Interfering with or impairing any program for competitive bidding for power supply in a state in which such program is established.

f	g	h (not required for renewal application)	
Unit ID#	Description of the combustion unit	Number of hours unit operated in the six months preceding initial application	
		_	

STEP 4 For SO<sub>2</sub> Opt-in units only.

In column "f" enter the unit ID# for every SO<sub>2</sub> Opt-in unit identified in column "a" of STEP 2.

For column "a" describe the combustion unit and attach information and diagrams on the combustion unit's configura-

In column "h" enter the hours.

Santa Rosa Energy Center Plant Name (from STEP 1)

#### STEP 5 i k m n For SO<sub>2</sub> Opt-in units only. Current Current Promulgated (Not required for Actual SO<sub>2</sub> Allowable 1985 Allowable SO<sub>2</sub> Baseline or Alternative **Emissions Rate** Emissions Rate SO<sub>2</sub> Emissions SO<sub>2</sub> Opt-in renewal SO<sub>2</sub> Emissions Unit ID# Baseline under Rate under under Rate under under applications.) 40 CFR 74.20 40 CFR 74.24 40 CFR 74.25 40 CFR 74.22 40 CFR 74.23 In column "i" enter (lbs/mmBtu) (mmBtu) (lbs/mmBtu) (lbs/mmBtu) (lbs/mmBtu) the unit ID# for every SO<sub>2</sub> Opt-in unit identified in column "a" (and in column "f"). For columns "j" through "n," enter the information required under 40 CFR 74.20-74.25 and attach all supporting documentation required by 40 CFR 74.20-74.25. A. If the combustion source seeks to qualify for a transfer of allowances from the replacement of thermal energy, a STEP 6 thermal energy plan as provided in 40 CFR 74.47 for combustion sources must be attached. B. A statement whether the combustion unit was previously an affected unit under 40 CFR 74. For SO<sub>2</sub> Opt-in A statement that the combustion unit is not an affected unit under 40 CFR 72.6 and does not have an units only. exemption under 40 CFR 72.7, 72.8, or 72.14. Attach a complete compliance plan for SO<sub>2</sub> under 40 CFR 72.40. The designated representative of the combustion unit shall submit a monitoring plan in accordance with 40 Attach additional CFR 74.61. For renewal application, submit an updated monitoring plan if applicable under 40 CFR 75.53(b). F. The following statement must be signed by the designated representative or alternate designated representative of requirements, the combustion source: "I certify that the data submitted under 40 CFR Part 74, Subpart C, reflects actual certify and sign. operations of the combustion source and has not been adjusted in any way." Certification (for designated representative or alternate designated representative only) STEP 7 I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the Read the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the certification information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that statement: provide there are significant penalties for submitting false statements and information or omitting required statements and information, including the name, title, owner possibility of fine or imprisonment. company name, Heidi Whidden **Director - Environmental Services Southeast Region** phone, and e-mail Name address; sign, and date. Santa Rosa Energy Center, LLC Owner Company Name (713) 570-4829 Heidi.Whidden@calpine.com Phone E-mail address

DEP Form No. 62-210.900(1)(a) - Form

Signature

Effective: 3/16/08

CLEAN AIR INTERSTATE RULE (CAIR) PART



## Clean Air Interstate Rule (CAIR) Part

This submission is:

For more information, see instructions and refer to 40 CFR 96.121, 96.122, 96.221, 96.222, 96.321 and 96.322; and Rule 62-296.470, F.A.C.

☐ Revised

□ Renewal

☐ New

	STEP 1  Identify the source by	Plant Name: <b>Sa</b>	nta Rosa Energy	Center		State: <b>Florida</b>	ORIS	or EIA Plant Code: 55242
	plant name and ORIS or EIA plant code							
	STEP 2	а	b	С	d	е		f
	In column "a" enter the unit ID# for every CAIR unit at the CAIR source. In columns "b," "c,"	Unit ID#	Unit will hold nitrogen oxides (NO <sub>X</sub> ) allowances in accordance with 40 CFR 96.106(c)(1)	Unit will hold sulfur diox- ide (SO <sub>2</sub> ) allow- ances in accordance with 40 CFR 96.206(c)(1)	Unit will hold NO <sub>X</sub> Ozone Season allow- ances in accordance with 40 CFR 96.306(c)(1)	Expecte Commence mercial Operation I	d Com-	New Units  Expected  Monitor  Certification  Deadline
	and "d," indicate to which CAIR program(s) each unit is subject by placing an "X" in the column(s).	CT-1	X	X	x	N/A		N/A
	For new units, enter the requested information in columns "e" and "f.							
						<del> </del>		
						-		
			i	1	i e	1		i

DEP Form No. 62-210.900(1)(b) – Form Effective: 3/16/08

#### STEP 3

Read the standard requirements.

#### Santa Rosa Energy Center

Plant Name (from STEP 1)

#### CAIR NO<sub>x</sub> ANNUAL TRADING PROGRAM

#### CAIR Part Requirements.

- (1) The CAIR designated representative of each CAIR NO<sub>X</sub> source and each CAIR NO<sub>X</sub> unit at the source shall:
  - (i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.122 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and (ii) [Reserved]:
- (2) The owners and operators of each CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source shall have a CAIR Part included in the Title V operating permit issued by the DEP under 40 CFR Part 96, Subpart CC, and operate the source and the unit in compliance with such CAIR Part

#### Monitoring, Reporting, and Recordkeeping Requirements.

- (1) The owners and operators, and the CAIR designated representative, of each CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HH, and Rule 62-296.470, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HH, shall be used to determine compliance by each CAIR NO<sub>x</sub> source with the following CAIR NO<sub>x</sub> Emissions Requirements.

#### NO<sub>X</sub> Emission Requirements.

- (1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source shall hold, in the source's compliance account, CAIR NO<sub>x</sub> allowances available for compliance deductions for the control period under 40 CFR 96.154(a) in an amount not less than the tons of total NO<sub>x</sub> emissions for the control period from all CAIR NO<sub>x</sub> units at the source, as determined in accordance with 40 CFR Part 96, Subpart HH.
- (2) A CAIR NO<sub>X</sub> unit shall be subject to the requirements under paragraph (1) of the NO<sub>X</sub> Requirements starting on the later of January 1, 2009, or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.170(b)(1) or (2) and for each control period thereafter.
- (3) A CAIR NO<sub>x</sub> allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the NO<sub>x</sub> Requirements, for a control period in a calendar year before the year for which the CAIR NO<sub>x</sub> allowance was allocated.
- (4) CAIR NO<sub>X</sub> allowances shall be held in, deducted from, or transferred into or among CAIR NO<sub>X</sub> Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FF and GG.
- (5) A CAIR NO<sub>x</sub> allowance is a limited authorization to emit one ton of NO<sub>x</sub> in accordance with the CAIR NO<sub>x</sub> Annual Trading Program. No provision of the CAIR NO<sub>x</sub> Annual Trading Program, the CAIR Part, or an exemption under 40 CFR 96.105 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.
- (6) A CAIR NO<sub>X</sub> allowance does not constitute a property right.
- (7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart EE, FF, or GG, every allocation, transfer, or deduction of a CAIR NO<sub>x</sub> allowance to or from a CAIR NO<sub>x</sub> unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR NO<sub>x</sub> unit.

#### Excess Emissions Requirements.

If a CAIR NO<sub>x</sub> source emits NO<sub>x</sub> during any control period in excess of the CAIR NO<sub>x</sub> emissions limitation, then:

- (1) The owners and operators of the source and each CAIR NO<sub>x</sub> unit at the source shall surrender the CAIR NO<sub>x</sub> allowances required for deduction under 40 CFR 96.154(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
- (2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AA, the Clean Air Act, and applicable state law.

#### Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the CAIR  $NO_X$  source and each CAIR  $NO_X$  unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the DEP or the Administrator.
- (i) The certificate of representation under 40 CFR 96.113 for the CAIR designated representative for the source and each CAIR NO<sub>X</sub> unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.113 changing the CAIR designated representative.
- (ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.
- (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO<sub>x</sub> Annual Trading Program.
- (iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR NO<sub>X</sub> Annual Trading Program or to demonstrate compliance with the requirements of the CAIR NO<sub>X</sub> Annual Trading Program.
- (2) The CAIR designated representative of a CAIR NO<sub>x</sub> source and each CAIR NO<sub>x</sub> unit at the source shall submit the reports required under the CAIR NO<sub>x</sub> Annual Trading Program, including those under 40 CFR Part 96, Subpart HH.

DEP Form No. 62-210.900(1)(b) – Form Effective: 3/16/08

#### STEP 3. Continued

#### Santa Rosa Energy Center

Plant Name (from STEP 1)

#### Liability.

- (1) Each CAIR NO<sub>X</sub> source and each CAIR NO<sub>X</sub> unit shall meet the requirements of the CAIR NO<sub>X</sub> Annual Trading Program.
- Any provision of the CAIR NO<sub>X</sub> Annual Trading Program that applies to a CAIR NO<sub>X</sub> source or the CAIR designated representative of a

NO<sub>X</sub> source shall also apply to the owners and operators of such source and of the CAIR NO<sub>X</sub> units at the source.

(3) Any provision of the CAIR NO<sub>x</sub> Annual Trading Program that applies to a CAIR NO<sub>x</sub> unit or the CAIR designated representative of a CAIR NO<sub>x</sub> unit shall also apply to the owners and operators of such unit.

#### Effect on Other Authorities.

No provision of the CAIR NO<sub>x</sub> Annual Trading Program, a CAIR Part, or an exemption under 40 CFR 96.105 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO<sub>x</sub> source or CAIR NO<sub>x</sub> unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

#### CAIR SO<sub>2</sub> TRADING PROGRAM

#### CAIR Part Requirements.

- The CAIR designated representative of each CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall:
  - (i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.222 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
- The owners and operators of each CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall have a CAIR Part included in the Title V operating permit issued by the DEP under 40 CFR Part 96, Subpart CCC, for the source and operate the source and each CAIR unit in compliance with such CAIR Part.

#### Monitoring, Reporting, and Recordkeeping Requirements.

(1) The owners and operators, and the CAIR designated representative, of each CAIR SO<sub>2</sub> source and each SO<sub>2</sub> CAIR unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96 Subpart HHH, and Rule 62-296.470, F.A.C. (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHH, shall be used to determine compliance by each CAIR SO<sub>2</sub> source with the following CAIR SO<sub>2</sub> Emission Requirements.

#### SO<sub>2</sub> Emission Requirements.

- (1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall hold, in the source's compliance account, a tonnage equivalent in CAIR SO<sub>2</sub> allowances available for compliance deductions for the control period, as determined in accordance with 40 CFR 96.254(a) and (b), not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO<sub>2</sub> units at the source, as determined in accordance with 40 CFR Part 96, Subpart HHH.
- (2) A CAIR SO2 unit shall be subject to the requirements under paragraph (1) of the Sulfur Dioxide Emission Requirements starting on the later of January 1, 2010 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.270(b)(1) or (2) and for each control period thereafter.
- (3) A CAIR SO₂ allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the SO₂ Emission Requirements, for a control period in a calendar year before the year for which the CAIR SO2 allowance was allocated.
- (4) CAIR SO<sub>2</sub> allowances shall be held in, deducted from, or transferred into or among CAIR SO<sub>2</sub> Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FFF and GGG.
- (5) A CAIR SO2 allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO2 Trading Program. No provision of the CAIR SO2 Trading Program, the CAIR Part, or an exemption under 40 CFR 96.205 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.
- (6) A CAIR SO<sub>2</sub> allowance does not constitute a property right.
- (7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart FFF or GGG, every allocation, transfer, or deduction of a CAIR SO<sub>2</sub> allowance to or from a CAIR SO2 unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR SO<sub>2</sub> unit.

#### Excess Emissions Requirements.

If a CAIR SO<sub>2</sub> source emits SO<sub>2</sub> during any control period in excess of the CAIR SO<sub>2</sub> emissions limitation, then:

- (1) The owners and operators of the source and each CAIR SO2 unit at the source shall surrender the CAIR SO2 allowances required for deduction under 40 CFR 96.254(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and
- (2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAA, the Clean Air Act, and applicable state law.

DEP Form No. 62-210.900(1)(b) - Form Effective: 3/16/08

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#### STEP 3, Continued

#### Santa Rosa Energy Center

Plant Name (from STEP 1)

#### Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Department or the Administrator.
- (i) The certificate of representation under 40 CFR 96.213 for the CAIR designated representative for the source and each CAIR SO<sub>2</sub> unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.213 changing the CAIR designated representative.
- (ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HHH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HHH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.
- (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR SO₂ Trading Program.
- (iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR SO<sub>2</sub> Trading Program or to demonstrate compliance with the requirements of the CAIR SO<sub>2</sub> Trading Program.
- (2) The CAIR designated representative of a CAIR SO<sub>2</sub> source and each CAIR SO<sub>2</sub> unit at the source shall submit the reports required under the CAIR SO<sub>2</sub> Trading Program, including those under 40 CFR Part 96, Subpart HHH.

#### Liability.

- (1) Each CAIR SO, source and each CAIR SO, unit shall meet the requirements of the CAIR SO, Trading Program.
- (2) Any provision of the CAIR SO<sub>2</sub> Trading Program that applies to a CAIR SO<sub>2</sub> source or the CAIR designated representative of a CAIR SO<sub>2</sub> source shall also apply to the owners and operators of such source and of the CAIR SO<sub>2</sub> units at the source.
- (3) Any provision of the CAIR SO<sub>2</sub> Trading Program that applies to a CAIR SO<sub>2</sub> unit or the CAIR designated representative of a CAIR SO<sub>2</sub> unit shall also apply to the owners and operators of such unit.

#### Effect on Other Authorities.

No provision of the CAIR  $SO_2$  Trading Program, a CAIR Part, or an exemption under 40 CFR 96.205 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR  $SO_2$  source or CAIR  $SO_2$  unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

#### CAIR NO, OZONE SEASON TRADING PROGRAM

#### CAIR Part Requirements.

- (1) The CAIR designated representative of each CAIR NO<sub>X</sub> Ozone Season source and each CAIR NO<sub>X</sub> Ozone Season unit at the source shall: (i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.322 and Rule 62-296.470, F.A.C., in accordance with the deadlines specified in Rule 62-213.420, F.A.C.; and
- (2) The owners and operators of each CAIR NO<sub>X</sub> Ozone Season source required to have a Title V operating permit or air construction permit, and each CAIR NO<sub>X</sub> Ozone Season unit required to have a Title V operating permit or air construction permit at the source shall have a CAIR Part included in the Title V operating permit or air construction permit issued by the DEP under 40 CFR Part 96, Subpart CCCC, for the source and operate the source and the unit in compliance with such CAIR Part.

#### Monitoring, Reporting, and Recordkeeping Requirements.

- (1) The owners and operators, and the CAIR designated representative, of each CAIR NO<sub>x</sub> Ozone Season source and each CAIR NO<sub>x</sub> Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HHHH, and Rule 62-296.470, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHHH, shall be used to determine compliance by each CAIR NO<sub>X</sub> Ozone Season source with the following CAIR NO<sub>X</sub> Ozone Season Emissions Requirements.

#### NO<sub>x</sub> Ozone Season Emission Requirements.

- (1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR  $NO_X$  Ozone Season source and each CAIR  $NO_X$  Ozone Season unit at the source shall hold, in the source's compliance account, CAIR  $NO_X$  Ozone Season allowances available for compliance deductions for the control period under 40 CFR 96.354(a) in an amount not less than the tons of total  $NO_X$  emissions for the control period from all CAIR  $NO_X$  Ozone Season units at the source, as determined in accordance with 40 CFR Part 96, Subpart HHHH.
- (2) A CAIR NO<sub>x</sub> Ozone Season unit shall be subject to the requirements under paragraph (1) of the NO, Ozone Season Emission Requirements starting on the later of May 1, 2009 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 96.370(b)(1),(2), or (3) and for each control period thereafter.
- (3) A CAIR  $NO_X$  Ozone Season allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the  $NO_X$  Ozone Season Emission Requirements, for a control period in a calendar year before the year for which the CAIR  $NO_X$  Ozone Season allowance was allocated.
- (4) CAIR NO<sub>X</sub> Ozone Season allowances shall be held in, deducted from, or transferred into or among CAIR NO<sub>X</sub> Ozone Season Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FFFF and GGGG.
- (5) A CAIR NO $_{\rm X}$  Ozone Season allowance is a limited authorization to emit one ton of NO $_{\rm X}$  in accordance with the CAIR NO $_{\rm X}$  Ozone Season Trading Program. No provision of the CAIR NO $_{\rm X}$  Ozone Season Trading Program, the CAIR Part, or an exemption under 40 CFR 96.305 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.
- (6) A CAIR NO<sub>X</sub> Ozone Season allowance does not constitute a property right.
   (7) Upon recordation by the Administrator under 40 CFR Part 96, Subpart EEEE, FFFF or GGGG, every allocation, transfer, or deduction of a CAIR NO<sub>X</sub> Ozone Season allowance to or from a CAIR NO<sub>X</sub> Ozone Season unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR NO<sub>X</sub> Ozone Season unit.

DEP Form No. 62-210.900(1)(b) – Form Effective: 3/16/08

#### STEP 3. Continued

#### Santa Rosa Energy Center

Plant Name (from STEP 1)

#### Excess Emissions Requirements.

If a CAIR NO<sub>x</sub> Ozone Season source emits NO<sub>x</sub> during any control period in excess of the CAIR NO<sub>x</sub> Ozone Season emissions limitation, then: (1) The owners and operators of the source and each CAIR NO<sub>x</sub> Ozone Season unit at the source shall surrender the CAIR NO<sub>x</sub> Ozone Season son allowances required for deduction under 40 CFR 96.354(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable state law; and

(2) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAAA, the Clean Air Act, and applicable state law.

#### Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the CAIR NO<sub>X</sub> Ozone Season source and each CAIR NO<sub>X</sub> Ozone Season unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the DEP or the Administrator.
- (i) The certificate of representation under 40 CFR 96.313 for the CAIR designated representative for the source and each CAIR NO<sub>x</sub> Ozone Season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR 96.113 changing the CAIR designated representative.
- (ii) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HHHH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HHHH, provides for a 3-year period for recordkeeping, the 3-year period shall apply.
- (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO<sub>x</sub> Ozone Season Trading Program.
- (iv) Copies of all documents used to complete a CAIR Part form and any other submission under the CAIR NO<sub>x</sub> Ozone Season Trading Program or to demonstrate compliance with the requirements of the CAIR NO<sub>x</sub> Ozone Season Trading Program.
- (2) The CAIR designated representative of a CAIR NO<sub>2</sub> Ozone Season source and each CAIR NO<sub>2</sub> Ozone Season unit at the source shall submit the reports required under the CAIR NO<sub>x</sub> Ozone Season Trading Program, including those under 40 CFR Part 96, Subpart HHHH.

- (1) Each CAIR NO<sub>x</sub> Ozone Season source and each CAIR NO<sub>x</sub> Ozone Season unit shall meet the requirements of the CAIR NO<sub>x</sub> Ozone Season
- (2) Any provision of the CAIR NO<sub>x</sub> Ozone Season Trading Program that applies to a CAIR NO<sub>x</sub> Ozone Season source or the CAIR designated representative of a CAIR NO<sub>X</sub> Ozone Season source shall also apply to the owners and operators of such source and of the CAIR NO<sub>X</sub> Ozone Season units at the source
- (3) Any provision of the CAIR NO<sub>x</sub> Ozone Season Trading Program that applies to a CAIR NO<sub>x</sub> Ozone Season unit or the CAIR designated representative of a CAIR NO<sub>X</sub> Ozone Season unit shall also apply to the owners and operators of such unit.

#### Effect on Other Authorities.

No provision of the CAIR NO₂ Ozone Season Trading Program, a CAIR Part, or an exemption under 40 CFR 96.305 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NOx Ozone Season source or CAIR NOx Ozone Season unit from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

#### STEP 4

#### Read the certification statement; provide name, title, owner company name, phone, and e-mail address; sign, and date.

#### Certification (for designated representative or alternate designated representative only)

I am authorized to make this submission on behalf of the owners and operators of the CAIR source or CAIR units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment

Heidi Whidden Name	Director - Environmental Services Southeast Region Title					
Santa Rosa Energy Center, LLC Owner Company Name						
(713) 570-4829 Phone	Heidi.Whidden@calpine.com E-mail address					
Signature HWhich	dec 5/15/12					

DEP Form No. 62-210.900(1)(b) - Form

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ATTACHMENT L
FUEL SPECIFICATIONS



## SANTA ROSA ENERGY CENTER FUEL ANALYSES OR SPECIFICATIONS

Natural Gas (typical composition)

Component	Mole Percent (by volume)
Gas Composition	
Hexane+	0.018
Propane	0.190
I-butane	0.010
N-butane	0.007
Pentane	0.002
Nitrogen	0.527
Methane	96.195
$\mathrm{CO}_2$	0.673
Ethane	2.379
Other Characteristics	
Heat content (HHV)	1,030 Btu/ft <sup>3</sup> at 14.73 psia, dry
Real specific gravity	0.5803
Sulfur content	0.5 gr/100 scf

Note: Btu/ft<sup>3</sup> = British thermal units per cubic foot. psia = pounds per square inch absolute.

gr/100 scf = grains per 100 standard cubic foot.

# ATTACHMENT M PROCEDURES FOR STARTUP AND SHUTDOWN



## SANTA ROSA ENERGY CENTER PROCEDURES FOR STARTUP AND SHUTDOWN

#### **COMBUSTION TURBINE NO. 1**

Operations and maintenance of the General Electric (GE) 7FA combustion turbine generator (CTG) is consistent with normal manufacturer and industry standards. The site maintains historical records of operations and maintenance activities.

#### STARTUP SEQUENCE

Startup of the GE 7FA CTG is implemented by means of a computer-controlled startup sequencer. The startup sequencer is given a START command by the control room operator. Immediately following this, the CTG is given the "AUTO-SYNCH" command. The startup sequencer then controls startup up to synchronous speed, at which point the CTG automatically synchronizes to the power grid. The control room operator then monitors and manages the plant startup and all environmental aspects of turbine start up.

#### SHUTDOWN SEQUENCE

CTG shutdown occurs in a similar fashion as the startup. Shutdown of the GE CTG is implemented by means of a computer-controlled shutdown sequencer following gradual reduction of plant output. The CTG's shutdown sequencer is given a STOP command by the control room operator. The shutdown sequencer then further reduces CTG load, disconnects the CTG from the power grid (opens the generator breaker), allows the CTG to cool for 3 minutes in a controlled manner, and then closes the fuel supply. Once the CTG has cooled sufficiently it is allowed to coast down and will automatically go on turning gear.

#### **COOLING TOWER**

#### STARTUP SEQUENCE

Operation of the cooling tower may be started either before or after operation of the turbine has started. The cooling tower is started by starting the mini-circulation pump and then by starting one of the two circulating pumps. Cooling tower fans are started at low speed as required to respond to the plant heat demand and operating conditions. All required steps are initiated from the control room.

#### SHUTDOWN SEQUENCE

Cooling tower shutdown reverses the cooling tower start up sequence.