### Memorandum

### Florida Department of **Environmental Protection**

TO: Trina Vielhauer, Bureau of Air Regulation

THROUGH:

Jon Holtom, Title V Section YHA

Yousry (Joe) Attalla, Title V Section YHA FROM:

DATE: August 16, 2010

SUBJECT: Draft Air Construction Permit Modification No. 1130168-009-AC (PSD-FL-253B)

Draft/Proposed Title V Air Operation Permit No. 1130168-010-AV

Santa Rosa Energy Center, LLC, Santa Rosa Energy Center

Title V Air Operation Permit and Air Construction Permit Modification

Removal of Obsolete Conditions

Attached for your review are the following items:

Written Notice of Intent to Issue Air Permits;

Public Notice of Intent to Issue Air Permits;

Statement of Basis:

Draft/Proposed Title V Air Operation Permit;

Draft Air Construction Permit Modification;

Technical Evaluation and Preliminary Determination; and,

P.E. Certification.

The construction permit project revises certain specific conditions of the original air construction permit No. 1130168-001-AC (PSD-FL-253A) to: remove obsolete conditions related to the duct burners which were never installed at the facility; clarify the 24-hour block average calculation; remove 40 CFR Part 75 missing data substitution requirements for concentration-based emissions; make clarifications to the excess emissions conditions resulting from start-up, shut-down, or malfunction; and, clarify Continuous Emissions Monitoring System (CEMS) Quality assurance requirements. No allowable limits or actual emissions will be affected by these revisions. The draft/proposed Title V air operation permit is for the revision of Title V air operation permit No. 1130168-007-AV, to incorporate the minor changes authorized by air construction permit No. 1130168-009-AC (PSD-FL-253B). The Statement of Basis provides a summary of the project and the rationale for issuance. The P.E. certification briefly summarizes the proposed project.

The application was received on June 1, 2010. Day 90 is August 30. There is no ongoing/open enforcement case for this facility, as advised by the Northwest District Office.

We recommend your approval of the attached draft/proposed Title V air operation permit and the draft air construction permit modification.

Attachments

TLV/jkh/yha

#### P.E. CERTIFICATION STATEMENT

#### **PERMITTEE**

Santa Rosa Energy Center, LLC. Calpine Operating Services Company, Inc. 717 Texas Avenue, Suite 1000 Houston, Texas 77002 Draft Permit No. 1130168-009-AC (PSD-FL-253B) Santa Rosa Energy Center Removal of Obsolete Conditions Santa Rosa County, Florida

#### PROJECT DESCRIPTION

Acting on behalf of Santa Rosa Energy Center, LLC, the Calpine Operating Services Company, Inc. requested revisions of the Santa Rosa Energy Center's PSD permit No. 1130168-001-AC (PSD-FL-253A). The purpose of the revision is to remove obsolete conditions related to the duct burners which were never installed at the facility; to clarify the 24-hour block average calculation; to remove the 40 CFR Part 75 missing data substitution requirement for concentration-based emissions; to clarify the excess emissions conditions resulting from start-up, shut-down, or malfunction; and, to clarify the Continuous Emissions Monitoring System (CEMS) Quality assurance requirements. No emissions limits or actual emissions will be affected by these revisions.

This project is subject to the general preconstruction review requirements in Rule 62-212.300, Florida Administrative Code (F.A.C.) and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality. The Department's full review of the project and rationale for issuing the draft permit is provided in the Technical Evaluation and Preliminary Determination.

I HEREBY CERTIFY that the air pollution control engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify any other aspects of the proposal (including, but not limited to, the electrical, civil, mechanical, structural, hydrological, geological, and meteorological features).

Jonathan K. Holtom, P.E.

Registration Number 0052664

#### P.E. CERTIFICATION STATEMENT

#### PERMITTEE

Santa Rosa Energy Center, LLC Calpine Operating Services Company, Inc. 717 Texas Avenue, Suite 1000 Houston, Texas 77002

Draft Permit No. 1130168-010-AV Facility ID No. 1130168 Santa Rosa Energy Center Removal of Obsolete Conditions Santa Rosa County, Florida

#### PROJECT DESCRIPTION

Acting on behalf of Santa Rosa Energy Center, LLC, Calpine Operating Services Company, Inc. requests revisions of the Santa Rosa Energy Center's Title V air operation permit No. 1130168-007-AV to incorporate the conditions of air construction permit modification permit No. 1130168-009-AC (PSD-FL-253B), which was issued concurrently with the processing of this revision. The purpose of the revisions is to remove obsolete conditions related to the duct burners which were never installed at the facility; to clarify the 24-hour block average calculation; to remove the 40 CFR Part 75 missing data substitution requirement for concentration-based emissions; to clarify the excess emissions conditions resulting from start-up, shut-down, or malfunction; and, to clarify the Continuous Emissions Monitoring System (CEMS) Quality assurance requirements. No emissions limits or actual emissions will be affected by these revisions.

I HEREBY CERTIFY that the air pollution control engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including, but not limited to, the electrical mechanical, structural, hydrological, geological, and meteorological features).

Jorathan K. Holton, P.E. Registration Number 005266



# Florida Department of Environmental Protection

Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400 Charlie Crist Governor

Jeff Kottkamp Lt. Governor

Michael W. Sole Secretary

Electronic Mail - Received Receipt Requested.

Mr. Jason M. Goodwin, P.E.
Director - Environmental, Health & Safety
Calpine Operating Services Company, Inc
717 Texas Avenue, Suite 1000
Houston, Texas 77002

Permit Nos. 1130168-010-AV and 1130168-009-AC (PSD-FL-253B)

Santa Rosa Energy Center

Air Construction Permit Modification and Revised Title V Air Operation Permit

#### Dear Mr. Goodwin:

Re:

Enclosed is the permit package for an air construction permit modification and a revised Title V air operation permit for the Santa Rosa Energy Center. This existing facility is located in Santa Rosa County at 5001 Sterling Way, Pace, Florida 32571. The permit package includes the following documents:

- The draft air construction permit modification and supporting technical evaluation and preliminary determination document.
- The statement of basis, which summarizes the facility, the equipment and the primary rule applicability for the initial Title V air operation permit.
- The draft/proposed revised Title V air operation permit, which includes the specific permit conditions that regulate the emissions units covered by the proposed project.
- The Written Notice of Intent to Issue Air Permits provides important information regarding: the Permitting Authority's intent to issue air permits for the proposed project; the requirements for publishing a Public Notice of the Permitting Authority's intent to issue air permits; the procedures for submitting comments on the draft/proposed permits; the process for filing a petition for an administrative hearing; and the availability of mediation.
- The Public Notice of Intent to Issue Air Permits is the actual notice that you must have published in the legal advertisement section of a newspaper of general circulation in the area affected by this project. The Public Notice of Intent to Issue Title V Air Permits must be published as soon as possible and the proof of publication must be provided to the Department within seven days of the date of publication.

If you have any questions, please contact the Project Engineer, Yousry (Joe) Attalla, by telephone at (850) 921-9527 or by email at yousry.attalla@dep.state.fl.us.

Sincerely,

Trina L. Vielhauer, Chief

Bureau of Air Regulation

)ate

Enclosures TLV/jkh/yha

In the Matter of an

Application for an Air Construction Permit Modification and a Revised Title V Air Operation Permit by:

Calpine Operating Services Company, Inc

717 Texas Avenue, Suite 1000

Houston, Texas 77002

Responsible Official:

Mr. Jason M. Goodwin, P.E.

Director - Environmental, Health & Safety

Permit Nos. 1130168-010-AV and 1130168-009-AC (PSD-FL-253B)

Facility ID No. 1130168 Santa Rosa Energy Center

Air Construction Permit Modification Revised Title V Air Operation Permit

Sente Base County Florida

Santa Rosa County, Florida

Facility Location: Calpine Operating Services Company, Inc. operates the Santa Rosa Energy Center, which is located in Santa Rosa County at 5001 Sterling Way, Pace, Florida 32571.

**Project**: The purpose of this project is to issue an air construction permit modification and a revised Title V air operation permit for the facility. Details of the project are provided in the application and the enclosed Statement of Basis.

This air construction permit modification updates the specific conditions of PSD-FL-253A to remove obsolete conditions related to the duct burners which were never installed at the facility; clarification of 24-hour block average calculation; removal of 40 CFR part 75 missing data substitution requirement for concentration-based emissions; clarification of excess emissions conditions resulting from start-up, shut-down, or malfunction; and, Continuous Emissions Monitoring System (CEMS) Quality Assurance requirements. The Title V permit revision is being made to incorporate the conditions of permit No. 1130168-009-AC (PSD-FL-253B).

**Permitting Authority**: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210 and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work.

Applications for Title V air operation permits with Acid Rain units are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, 62-213 and 62-214 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and a Title V air operation permit is required to operate the facility. The Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at the address indicated above for the Permitting Authority. The complete project file includes the draft/proposed permits, the statement of basis, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may view the draft/proposed permits by visiting the following website: <a href="http://www.dep.state.fl.us/air/emission/apds/default.asp">http://www.dep.state.fl.us/air/emission/apds/default.asp</a> and entering the permit number shown above. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address or phone number listed above.

Notice of Intent to Issue Permits: The Permitting Authority gives notice of its intent to issue an air construction permit modification to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297,

F.A.C. The Permitting Authority will issue a final permit in accordance with the conditions of the draft air construction permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

The Permitting Authority gives notice of its intent to issue a revised Title V air operation permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a final permit in accordance with the conditions of the draft/proposed permit unless a response received in accordance with the following procedures results in a different decision or a significant change of terms or conditions.

**Public Notice:** Pursuant to Section 403.815, F.S. and Rules 62-110.106 and 62-210.350, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Permit (Public Notice). The Public Notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected by this project. The newspaper used must meet the requirements of Sections 50.011 and 50.031, F.S. in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Permitting Authority at the above address or phone number. Pursuant to Rule 62-110.106(5) and (9), F.A.C., the applicant shall provide proof of publication to the Permitting Authority at the above address within 7 days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

Comments: The Permitting Authority will accept written comments concerning the draft air construction permit modification for a period of 14 days from the date of publication of the Public Notice. Written comments must be received by the Permitting Authority by close of business (5:00 p.m.) on or before the end of this 14-day period. If written comments received result in a significant change to the draft air construction permit modification, the Permitting Authority shall revise the draft air construction permit modification and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

The Permitting Authority will accept written comments concerning the draft/proposed Title V air operation permit revision for a period of 30 days from the date of publication of the Public Notice. Written comments must be received by the close of business (5:00 p.m.), on or before the end of this 30-day period by the Permitting Authority at the above address. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on this permitting action. If the Permitting Authority determines there is sufficient interest for a public meeting, it will publish notice of the time, date, and location in the Florida Administrative Weekly (FAW). If a public meeting is requested within the 30-day comment period and conducted by the Permitting Authority, any oral and written comments received during the public meeting will also be considered by the Permitting Authority. If timely received written comments or comments received at a public meeting result in a significant change to the draft/proposed permit, the Permitting Authority shall issue a revised draft/proposed permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection. For additional information, contact the Permitting Authority at the above address or phone number.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within 14 days of receipt of this Written Notice of Intent to Issue Air Permit. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of

publication of the attached Public Notice or within 14 days of receipt of this Written Notice of Intent to Issue Air Permit, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of when and how each petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Written Notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

**Mediation**: Mediation is not available in this proceeding.

EPA Review: EPA has agreed to treat the draft/proposed Title V air operation permit as a proposed Title V air operation permit and to perform its 45-day review provided by the law and regulations concurrently with the public comment period. Although EPA's 45-day review period will be performed concurrently with the public comment period, the deadline for submitting a citizen petition to object to the EPA Administrator will be determined as if EPA's 45-day review period is performed after the public comment period has ended. The final Title V air operation permit will be issued after the conclusion of the 45-day EPA review period so long as no adverse comments are received that result in a different decision or significant change of terms or conditions. The status regarding EPA's 45-day review of this project and the deadline for submitting a citizen petition can be found at the following website address: <a href="http://www.epa.gov/region4/air/permits/Florida.htm">http://www.epa.gov/region4/air/permits/Florida.htm</a>.

Objections: Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 days of the expiration of the Administrator's 45-day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to the issuance of any Title V air operation permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30-day public comment period provided in the Public Notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C.

Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460. For more information regarding EPA review and objections, visit EPA's Region 4 web site at <a href="http://www.epa.gov/region4/air/permits/Florida.htm">http://www.epa.gov/region4/air/permits/Florida.htm</a>.

Executed in Tallahassee, Florida.

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Trina L. Vielhauer, Chief Bureau of Air Regulation

#### **CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that either this Written Notice of Intent to Issue an Air Construction Permit Modification and a Revised Title V Air Operation Permit (including the Public Notice, the Statement of Basis, the Draft/Proposed Permits and Technical Evaluation and Preliminary Determination), or a link to these documents available electronically on a publicly accessible server, was sent by electronic mail with received receipt requested before the close of business on to the persons listed below.

Mr. Jason M. Goodwin, P.E., Calpine Operating Services Company, Inc.: jgoodwin@calpine.com

Mr. Dane Hill, Calpine Operating Services Company, Inc.: dhill@calpine.com

Ms. Heidi M. Whidden, Calpine Operating Services Company, Inc.: hwhidden@calpine.com

Ms. Ana Oquendo, US EPA, Region 4: oquendo.ana@epa.gov

Ms. Kathleen R. Forney, U.S. EPA, Region 4: Forney.Kathleen@epamail.epa.gov

Mr. Rick Bradburn, DEP NWD: Rick.Bradburn@dep.state.fl.us

Ms. Barbara Friday, DEP BAR: Barbara.Friday@dep.state.fl.us (for posting with U.S. EPA, Region 4)

Ms. Victoria Gibson, DEP BAR: victoria.gibson@dep.state.fl.us (for reading file)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

Florida Department of Environmental Protection
Division of Air Resource Management, Bureau of Air Regulation
Draft/Proposed Title V Air Operation Permit Revision No. 1130168-010-AV
Draft Air Construction Permit Modification No. 1130168-009-AC (PSD-FL-253B)
Santa Rosa Energy Center, LLC, Santa Rosa Energy Center
Santa Rosa County, Florida

**Applicant**: Acting on behalf of Santa Rosa Energy Center, LLC, the applicant for this project is Calpine Operating Services Company, Inc. The applicant's responsible official and mailing address are: Jason M. Goodwin, P.E., Director - Environmental, Health & Safety, 717 Texas Avenue, Suite 1000, Houston, Texas 77002.

**Facility Location**: The applicant operates the existing Santa Rosa Energy Center, which is located in Santa Rosa County at 5001 Sterling Way, Pace, Florida.

**Project**: The applicant applied on June 1, 2010 to the Department for an air construction permit modification and revised Title V air operation permit.

The existing facility is a cogeneration plant and consists of one natural gas-fired nominal 167 megawatt combined-cycle combustion turbine-electrical generator with an unfired heat recovery steam generator, one 200-foot exhaust stack, an unregulated wet cooling tower, and a small natural gas preheater. The combustion turbine unit is equipped with General Electric's Dry Low-Nitrogen Oxides (NO<sub>X</sub>) combustion for natural gas. Emissions from the combustion turbine are also controlled by the use of pipeline natural gas and good combustion techniques. Drift eliminators are installed on the cooling tower to reduce particulate emissions. The facility is classified as a Title V major source, a Title IV acid rain source and a major stationary source subject to the Prevention of Significant Deterioration (PSD) of Air Quality.

Calpine Operating Services Company, Inc. on behalf of Santa Rosa Energy Center, LLC requests revisions of the Santa Rosa Energy Center's PSD permit No. 1130168-001-AC (PSD-FL-253A) and Title V permit revisions of permit No. 1130168-007-AV with respect to the Combustion Turbine (EU-001) to remove obsolete conditions related to the duct burners which were never installed at the facility; clarification of 24-hour block average calculation; removal of 40 Code of Federal Regulations (CFR) part 75 missing data substitution requirement for concentration-based emissions; clarification of excess emissions conditions resulting from start-up, shut-down, or malfunction; and, Continuous Emissions Monitoring System (CEMS) Quality assurance requirements. No emissions units will be affected by these revisions.

**Permitting Authority**: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210 and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to perform the proposed work. The Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project.

Applications for Title V air operation permits with Acid Rain units are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, 62-213 and 62-214, of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and a Title V air operation permit is required to operate the facility. The Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination for this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114.

**Project File:** A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at the address indicated above for the

Permitting Authority. The complete project file includes the draft air construction permit modification, the draft/proposed Title V air operation permit revision, the Statement of Basis, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may view the draft/proposed permits by visiting the following website: <a href="http://www.dep.state.fl.us/air/emission/apds/default.asp">http://www.dep.state.fl.us/air/emission/apds/default.asp</a> and entering the permit number shown above. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address or phone number listed above.

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its intent to issue an air construction permit modification to the applicant for the project described above. The applicant has provided reasonable assurance that operation of proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a final permit in accordance with the conditions of the proposed draft air construction permit modification unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

The Permitting Authority gives notice of its intent to issue a Title V air operation permit revision to the applicant for the project described above. The applicant has provided reasonable assurance that continued operation of existing equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a final Title V air operation permit in accordance with the conditions of the draft/proposed Title V air operation permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Comments: The Permitting Authority will accept written comments concerning the draft air construction permit modification for a period of 14 days from the date of publication of the Public Notice. Written comments must be received by the Permitting Authority by close of business (5:00 p.m.) on or before the end of this 14-day period. If written comments received result in a significant change to the draft air construction permit modification, the Permitting Authority shall revise the draft air construction permit modification and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

The Permitting Authority will accept written comments concerning the draft/proposed Title V air operation permit revision for a period of 30 days from the date of publication of the Public Notice. Written comments must be received by the close of business (5:00 p.m.), on or before the end of this 30-day period by the Permitting Authority at the above address. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on this permitting action. If the Permitting Authority determines there is sufficient interest for a public meeting, it will publish notice of the time, date, and location in the Florida Administrative Weekly (FAW). If a public meeting is requested within the 30-day comment period and conducted by the Permitting Authority, any oral and written comments received during the public meeting will also be considered by the Permitting Authority. If timely received written comments or comments received at a public meeting result in a significant change to the draft/proposed Title V air operation permit, the Permitting Authority shall issue a revised draft/proposed Title V air operation permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection. For additional information, contact the Permitting Authority at the above address or phone number.

**Petitions**: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by any persons other than those entitled to

written notice under Section 120.60(3), F.S. must be filed within 14 days of publication of the Public Notice or receipt of a written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address and telephone number of the petitioner; the name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner received notice of the agency action or proposed decision; (c) A statement of when and how the petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact. If there are none, the petitioner ust so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Public Notice of Intent to Issue Air Permit. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available for this proceeding.

EPA Review: EPA has agreed to treat the draft/proposed Title V air operation permit as a proposed Title V air operation permit and to perform its 45-day review provided by the law and regulations concurrently with the public comment period. Although EPA's 45-day review period will be performed concurrently with the public comment period, the deadline for submitting a citizen petition to object to the EPA Administrator will be determined as if EPA's 45-day review period is performed after the public comment period has ended. The final Title V air operation permit will be issued after the conclusion of the 45-day EPA review period so long as no adverse comments are received that result in a different decision or significant change of terms or conditions. The status regarding EPA's 45-day review of this project and the deadline for submitting a citizen petition can be found at the following website address: <a href="http://www.epa.gov/region4/air/permits/Florida.htm">http://www.epa.gov/region4/air/permits/Florida.htm</a>.

Objections: Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 days of the expiration of the Administrator's 45-day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to the issuance of any Title V air operation permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30-day public comment period provided in the Public Notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-

213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460. For more information regarding EPA review and objections, visit EPA's Region 4 web site at <a href="http://www.epa.gov/region4/air/permits/Florida.htm">http://www.epa.gov/region4/air/permits/Florida.htm</a>.



# TECHNICAL EVALUATION & PRELIMINARY DETERMINATION

### Santa Rosa Energy Center, LLC

Operated By: Calpine Operating Services Company, Inc. 717 Texas Avenue, Suite 1000 Houston, Texas 77002

> Santa Rosa Energy Center Facility ID No. 1130168

Project No. 1130168-009-AC (PSD-FL-253B)

Minor Source Air Construction Permit Modification

### Removal of Obsolete Conditions

Santa Rosa County, Florida

#### PERMITTING AUTHORITY:

Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
Title V Section
2600 Blair Stone Road, MS#5505
Tallahassee, Florida 32399-2400

August 16, 2010

#### 1. GENERAL PROJECT INFORMATION

#### Air Pollution Regulations

Projects at stationary sources with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following applicable chapters: 62-4 (Permits); 62-204 (Air Pollution Control – General Provisions); 62-210 (Stationary Sources – General Requirements); 62-212 (Stationary Sources – Preconstruction Review); 62-213 (Operation Permits for Major Sources of Air Pollution); 62-296 (Stationary Sources - Emission Standards); and 62-297 (Stationary Sources – Emissions Monitoring). Specifically, air construction permits are required pursuant to Rules 62-4, 62-210 and 62-212, F.A.C.

In addition, the U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial categories. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department adopts these federal regulations on a quarterly basis in Rule 62-204.800, F.A.C.

#### **Glossary of Common Terms**

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of this permit.

#### **Facility Description and Location**

Santa Rosa Energy Center is an existing electrical power plant categorized under Standard Industrial Classification No. 4911. The existing facility is located in Santa Rosa County at 5001 Sterling Way, Pace, Florida. The UTM coordinates are Zone 16, 488.970 km East and 3381.350 km North; and, Latitude: 30° 33′ 58″ North and Longitude: 87° 06′ 54″ West. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to state and federal Ambient Air Quality Standards (AAQS).

#### **Facility Regulatory Categories**

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility operates units subject to the acid rain provisions of the Clean Air Act.
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.
- The facility operates units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.
- The facility operates units subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

#### **Project Description**

Acting on behalf of Santa Rosa Energy Center, LLC, the Calpine Operating Services Company, Inc., requests revisions of the Santa Rosa Energy Center's PSD permit No. 1130168-001-AC (PSD-FL-253A) to: remove obsolete conditions related to the duct burners which were never installed at the facility; clarify the 24-hour block average calculation; remove 40 CFR Part 75 missing data substitution requirements for concentration-based emissions; make clarifications to the excess emissions conditions resulting from start-up, shut-down, or malfunction; and, clarify Continuous Emissions Monitoring System (CEMS) Quality assurance requirements. No allowable limits or actual emissions will be affected by these revisions.

#### TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

#### **Processing Schedule**

June 1, 2010 Received the application for a minor source air pollution construction permit.

Month Day, 2010 Issued draft permit.

#### 2. PSD APPLICABILITY

### General PSD Applicability

For areas currently in attainment with the state and federal AAQS or areas otherwise designated as unclassifiable, the Department regulates major stationary sources of air pollution in accordance with Florida's PSD preconstruction review program as defined in Rule 62-212.400, F.A.C. Under preconstruction review, the Department first must determine if a project is subject to the PSD requirements ("PSD applicability review") and, if so, must conduct a PSD preconstruction review. A PSD applicability review is required for projects at new and existing major stationary sources. In addition, proposed projects at existing minor sources are subject to a PSD applicability review to determine whether potential emissions from the proposed project itself will exceed the PSD major stationary source thresholds. A facility is considered a major stationary source with respect to PSD if it emits or has the potential to emit:

- 5 tons per year or more of lead;
- 250 tons per year or more of any regulated air pollutant; or
- 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the following 28 PSD-major facility categories: fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input, coal cleaning plants (with thermal dryers), Kraft pulp mills, portland cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants, primary copper smelters, municipal incinerators capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production plants, chemical process plants, fossil fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input, petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels, taconite ore processing plants, glass fiber processing plants and charcoal production plants.

Once it is determined that a project is subject to PSD preconstruction review, the project emissions are compared to the "significant emission rates" defined in Rule 62-210.200, F.A.C. for the following pollutants: carbon monoxide (CO); nitrogen oxides (NO<sub>X</sub>); sulfur dioxide (SO<sub>2</sub>); particulate matter (PM); particulate matter with a mean particle diameter of 10 microns or less (PM<sub>10</sub>); volatile organic compounds (VOC); lead (Pb); fluorides (F); sulfuric acid mist (SAM); hydrogen sulfide (H<sub>2</sub>S); total reduced sulfur (TRS), including H<sub>2</sub>S; reduced sulfur compounds, including H<sub>2</sub>S; municipal waste combustor organics measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans; municipal waste combustor metals measured as particulate matter; municipal waste combustor acid gases measured as SO<sub>2</sub> and hydrogen chloride (HCl); municipal solid waste landfills emissions measured as non-methane organic compounds (NMOC); and mercury (Hg). In addition, significant emissions rate also means any emissions rate or any net emissions increase associated with a major stationary source or major modification which would construct within 10 kilometers of a Class I area and have an impact on such area equal to or greater than 1  $\mu$ g/m³, 24-hour average.

If the potential emission exceeds the defined significant emissions rate of a PSD pollutant, the project is considered "significant" for the pollutant and the applicant must employ the Best Available Control Technology (BACT) to minimize the emissions and evaluate the air quality impacts. Although a facility or project may be *major* with respect to PSD for only one regulated pollutant, it may be required to install BACT controls for several "significant" regulated pollutants.

#### TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

#### **PSD Applicability for Project**

This project does not change actual or allowable emissions, it only deletes obsolete language and makes the minor changes for clarification purposes described in the Project Description, above. Therefore, PSD review does not apply to this project.

#### 3. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. No air quality modeling analysis is required because the project does not result in a significant increase in emissions.

The changes requested by the applicant, as listed in the project description above and as detailed in the attached minor air construction permit modification, are acceptable to the Department for the following reasons:

- Removal of the language relating to duct burners is acceptable because the duct burners were never installed.
- 2. The Department agrees to remove the reference to the 40 CFR Part 75 missing data substitution, because the missing data substitution procedures are applicable only to the calculation of NO<sub>X</sub> emissions on a lb/MMBtu emission rate basis. Calculation of NO<sub>X</sub> emissions on a concentration basis (which is the basis of the limit in this permit) is not addressed by this regulation. In addition, 40 CFR 60 Subpart GG specifies that Part 75 monitoring procedures are acceptable, with the exception that missing data is to be excluded from the data averages and reported as monitor downtime.
- 3. The requested changes to the language related to the 24-hour block average is acceptable because it resolves a conflict within the excess emissions condition of the original PSD permit and clarifies that the 24-hour block average specified in the NO<sub>X</sub> emissions limit of the original permit is for the 24-hour period from midnight to midnight.
- 4. Because NO<sub>X</sub> CEMS are used for compliance purposes and capture data on a minute-by-minute basis, the clarification to the excess emissions exclusions allowing for the actual minutes of the duration of documented excess emissions rather than a full hour per occurrence is acceptable.
- 5. The requested change to the quality assurance requirements contained in condition 44 is acceptable as the original permit contained an improper reference to rule 62-297.520, F.A.C. Quality assurance of the CEMS is performed in accordance with the provisions of 40 CFR 60, Appendix F or 40 CFR 75, as applicable.

Yousry (Joe) Attalla is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at the Department's Bureau of Air Regulation at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

### DRAFT PERMIT MODIFICATION

#### **PERMITTEE**

Santa Rosa Energy Center, LLC Calpine Operating Services Company, Inc. 717 Texas Avenue, Suite 1000 Houston, Texas 77002

Authorized Representative: Jason M. Goodwin, P.E. Director - Environmental, Health & Safety Air Permit No. 1130168-009-AC (PSD-FL-253B) Minor Air Construction / PSD Permit Revision Santa Rosa Energy Center Removal of Obsolete Conditions

#### **PROJECT**

This is the final air construction permit, which revises permit No. 1130168-001-AC (PSD-FL-253A) to: remove obsolete conditions related to the duct burners which were never installed at the facility; clarify the 24-hour block average calculation; remove 40 CFR Part 75 missing data substitution requirements for concentration-based emissions; make clarifications to the excess emissions conditions resulting from start-up, shut-down, or malfunction; and, clarify Continuous Emissions Monitoring System (CEMS) quality assurance requirements. No allowable limits or actual emissions will be affected by these revisions. Santa Rosa Energy Center is an existing electrical power plant categorized under Standard Industrial Classification No. 4911. The existing facility is located in Santa Rosa County at 5001 Sterling Way, Pace, Florida. The UTM coordinates are Zone 16, 488.970 km East and 3381.350 km North; and, Latitude: 30° 33' 58" North and Longitude: 87° 06' 54" West.

This final permit is organized into the following sections: Section 1 (General Information) and Section 2 (Permit Revisions). As noted in the Final Determination provided with this final permit, only minor changes and clarifications were made to the draft permit.

#### STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality. A copy of this permit modification shall be filed with the referenced permit and shall become part of the permit.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida

(DRAFT)	
Joseph Kahn, Director	(Date)
Division of Air Resource Management	

### DRAFT PERMIT MODIFICATION

### **CERTIFICATE OF SERVICE**

The undersigned duly designated d	leputy agency clerk	chereby certifies that this Fina	I Air Permit package
(including the Final Determination	and Final Permit I	Modification) was sent by elec	tronic mail, or a link to these
documents made available electror	nically on a publicly	y accessible server, with receiv	ved receipt requested before
the close of business on	(DRAFT)	to the persons listed bel	ow.
Mr. Jason M. Goodwin, P.E., Calp Mr. Dane Hill, Calpine Operating S Ms. Heidi M. Whidden, Calpine O Ms. Kathleen R. Forney, U.S. EPA Ms. Ana Oquendo, U.S. EPA, Reg Mr. Rick Bradburn, DEP NWD: 11 Ms. Barbara Friday, DEP BAR: 12 Ms. Victoria Gibson, DEP BAR: 12	Services Company, perating Services (c., Region 4: forney ion 4: oquendo.an ick.bradburn@dep.arbara.friday@dep.	, Inc.: dhill@calpine.com Company, Inc.: hwhidden@ca y.kathleen@epamail.epa.gov a@epamail.epa.gov .state.fl.us .state.fl.us (for posting with U.	llpine.com
	Cler	k Stamp	
	purs desig	ING AND ACKNOWLEDG uant to Section 120.52(7), Flor gnated agency clerk, receipt of towledged.	rida Statutes, with the
		(DRAFT)	
		(Clerk)	(Date)

#### SECTION 1. GENERAL INFORMATION (DRAFT)

#### **FACILITY DESCRIPTION**

The existing facility is a cogeneration plant and consists of one natural gas-fired nominal 167 megawatt combined-cycle combustion turbine-electrical generator with an unfired heat recovery steam generator, one 200-foot exhaust stack, an unregulated wet cooling tower, and a small natural gas preheater. The combustion turbine unit is equipped with General Electric's Dry Low-NO<sub>X</sub> combustion for natural gas. Emissions from the combustion turbine are also controlled by the use of pipeline natural gas and good combustion techniques. Drift eliminators are installed on the cooling tower to reduce particulate emissions. The facility is classified as a Title V major source, a Title IV acid rain source and a major stationary source subject to the Prevention of Significant Deterioration (PSD) of Air Quality.

#### FACILITY REGULATORY CLASSIFICATION

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility operates units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.
- The facility operates units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.
- The facility operates units subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

#### PROPOSED PROJECT

Calpine Operating Services Company, Inc., on behalf of Santa Rosa Energy Center, LLC, requests revisions of the Santa Rosa Energy Center's PSD permit No. 1130168-001-AC (PSD-FL-253A) to: remove obsolete conditions related to the duct burners which were never installed at the facility; clarify the 24-hour block average calculation; remove 40 CFR Part 75 missing data substitution requirements for concentration-based emissions; make clarifications to the excess emissions conditions resulting from start-up, shut-down, or malfunction; and, clarify Continuous Emissions Monitoring System (CEMS) Quality assurance requirements. No allowable limits or actual emissions will be affected by these revisions.

The following permit conditions are revised as indicated. Strikethrough is used to denote the deletion of text. Double-underlines are used to denote the addition of text. All changes are emphasized with yellow highlight.

1. Other Permits. Except as listed below, all other conditions of existing permits remain in effect and unchanged.

Permit Being Modified: Permit No. 1130168-001-AC (PSD-FL-253A) Affected Emissions Units: EU-001

- 2. Section III, Specific Condition 9: To clarify when manufacturer's curves need to be submitted or resubmitted, Specific Condition 9 is changed as follows:
  - 9. Turbine Capacity. The maximum heat input rate, based on the lower heating value (LHV) of the fuel at ambient conditions of 59°F temperature, 60% relative humidity, 100% load, and 14.7 psi pressure shall not exceed 1,780 million Btu per hour (MMBtu/hr). This maximum heat input rate will vary depending upon ambient conditions and the combustion turbine characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other ambient conditions shall be were to have been provided to the Department of Environmental Protection (DEP) within 45 days of completing the initial compliance testing. The manufacturer's curves shall be reestablished and resubmitted to DEP within 45 days following the replacement of any combustion turbine components or major turbine tuning session that could reasonably affect the performance of the turbine. [Rule 62-210.200, F.A.C. (Definitions Potential Emissions); 1130168-001-AC, Specific Condition 9; and, 1130168-009-AC (PSD-FL 253B), Specific Condition 2.]
- 3. Section III, Specific Condition 21: To reflect the fact that the duct burners were never installed and to clarify that 40 CFR Part 75 missing data substitution requirements do not apply to concentration-based limits, bullets 1 and 4 of this condition are revised as follows:
  - The concentration of NO<sub>X</sub> in the stack exhaust gas, with the combustion turbine operating and the duct burner on shall not exceed 9.8 ppmvd at 15% O<sub>2</sub> (24 hr block average), and with the combustion turbine operating and the duct burner off shall not exceed 9 ppmvd at 15% O<sub>2</sub> (24-hour block average). Emissions of NO<sub>X</sub> in the stack exhaust gas (at ISO conditions) with the combustion turbine operating shall not exceed 106 pounds per hour (lb/hr) with the duct burner on and 64.1 lb/hr with the duct burner off to beas demonstrated by initial stack test. [40 CFR 60 Subpart GG, Subpart Da and Rule 62-212.400, F.A.C.]
  - When NO<sub>X</sub> monitoring data is not available, substitution for missing data shall be handled as required by Title IV (40 CFR 75) to calculate any specified average time. Part 75 missing data, start up and shut down emissions as defined in condition 27 of this permit will not be included in the daily ppmvd averages.
- 4. Section III, Specific Condition 27: To clarify periods of allowable excess emissions, this condition is revised as follows:
  - 27. Excess emissions: 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. Excess emissions occurrences shall in no case exceed two hours (120 minutes) in any operating day 24 hour period except during either both "cold start-up" to or shutdowns from cogeneration and/or combined-cycle plant operation. During cold start-up 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. 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 (2,880 minutes). An operating day is defined as a day (midnight to midnight) that includes operation a complete shutdown lasting at least 48 hours. [Applicant Request,

G.E. Combined-Cycle Startup Curves Data; Rules 62-210.700(1) and (2), F.A.C.; and 1130168-001-AC, Specific Condition 27; and 1130168-009-AC (PSD-FL-253B), Specific Condition 4.].

{Permitting Note: GE defines the lowest stable load normal operation as Mode 6.}

- 5. Section III, Specific Condition 32: To reflect the fact that SCR was not installed, this condition is revised as follows:
  - 32. Continuous Compliance With The NO<sub>X</sub> Emission Limits: Continuous compliance with the NO<sub>X</sub> emission limits shall be demonstrated with the CEM system based on the applicable averaging time of 24-hr block average (DLN) or a 3-hr average (if SCR is used). Based on CEMS data, a separate compliance determination is conducted at the end of each operating day (or 3-hr period when applicable) (midnight). The compliance determination shall be the arithmetic average of all valid hourly emission rates from the previous operating day collected from midnight to midnight and a new average emission rate is calculated from the arithmetic average of all valid hourly emission rates from the previous operating day (or 3-hr period when applicable). Valid hourly emission rates shall not include periods of start up, shutdown, or malfunction, which are excused under Condition 27, unless prohibited by 62-210.700, F.A.C. A valid hourly emission rate shall be calculated for each hour in which at least two NO<sub>X</sub> concentrations are obtained at least 15 minutes apart. These excess emissions periods shall be reported as required in Condition 29. [Rules 62-4.070 F.A.C., 62-210.700, F.A.C., 40 CFR 75 and BACT]
- 6. Section III, Specific Condition 44: To clarify the quality assurance requirements for the CEMS, this condition is revised as follows:
  - 44. Continuous Monitoring System Reports: The monitoring devices shall comply with the certification requirements of each device and quality assurance, and any other applicable requirements of Rule 62-297.520, F.A.C., 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5) or 40 CFR Part 75. Quality assurance procedures must conform to all applicable sections of 40 CFR 60, Appendix F or 40 CFR 75, as applicable. The monitoring plan, consisting of data on CEM equipment specifications, manufacturer, type, calibration and maintenance needs, and its proposed location shall be provided to the DEP Emissions Monitoring Section Administrator and EPA for review no later than 45 days prior to the first scheduled certification test pursuant to 40 CFR 75.62. [1130168-001-AC, Specific Condition 44]

### **SECTION 3. APPENDICES (DRAFT)**

#### Contents

Appendix A. Citation Formats and Glossary of Common Terms

Appendix B. General Conditions

Appendix C. Common Conditions

Appendix D. Common Testing Requirements

#### Citation Formats and Glossary of Common Terms

#### CITATION FORMATS

The following illustrate the formats used in the permit to identify applicable requirements from permits and regulations.

#### **Old Permit Numbers**

Example: Permit No. AC50-123456 or Permit No. AO50-123456

Where: "AC" identifies the permit as an Air Construction Permit

"AO" identifies the permit as an Air Operation Permit

"123456" identifies the specific permit project number

#### **New Permit Numbers**

Example: Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

Where: "099" represents the specific county ID number in which the project is located

"2222" represents the specific facility ID number for that county

"001" identifies the specific permit project number

"AC" identifies the permit as an air construction permit

"AF" identifies the permit as a minor source federally enforceable state operation permit

"AO" identifies the permit as a minor source air operation permit

"AV" identifies the permit as a major Title V air operation permit

#### **PSD Permit Numbers**

Example: Permit No. PSD-FL-317

Where: "PSD" means issued pursuant to the preconstruction review requirements of the Prevention of Significant

Deterioration of Air Quality

"FL" means that the permit was issued by the State of Florida

"317" identifies the specific permit project number

#### Florida Administrative Code (F.A.C.)

Example: [Rule 62-213.205, F.A.C.]

Means: Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

#### Code of Federal Regulations (CFR)

Example: [40 CRF 60.7]

Means: Title 40, Part 60, Section 7

#### **GLOSSARY OF COMMON TERMS**

° F: degrees Fahrenheit
ARMS: Air Resource Management System

µg: microgram (Department's database)

AAQS: Ambient Air Quality Standard BACT: best available control technology

acf: actual cubic feet bhp: brake horsepower

acfm: actual cubic feet per minute

Btu: British thermal units

#### Citation Formats and Glossary of Common Terms

CAM: compliance assurance monitoring

CEMS: continuous emissions monitoring system

cfm: cubic feet per minute

**CFR**: Code of Federal Regulations

CAA: Clean Air Act

CMS: continuous monitoring system

CO: carbon monoxide CO<sub>2</sub>: carbon dioxide

COMS: continuous opacity monitoring system DARM: Division of Air Resource Management DEP: Department of Environmental Protection

**Department:** Department of Environmental Protection

dscf: dry standard cubic feet

**dscfm**: dry standard cubic feet per minute **EPA**: Environmental Protection Agency

ESP: electrostatic precipitator (control system for

reducing particulate matter)

EU: emissions unit

F: fluoride

**F.A.C.**: Florida Administrative Code **F.A.W.**: Florida Administrative Weekly

F.D.: forced draft
F.S.: Florida Statutes

FGD: flue gas desulfurization FGR: flue gas recirculation

ft<sup>2</sup>: square feet ft<sup>3</sup>: cubic feet

gpm: gallons per minute

gr: grains

HAP: hazardous air pollutant

Hg: mercury
I.D.: induced draft
ID: identification
kPa: kilopascals

lb: pound

MACT: maximum achievable technology MMBtu: million British thermal units MSDS: material safety data sheets MW: megawatt

NESHAP: National Emissions Standards for Hazardous

Air Pollutants

NO<sub>x</sub>: nitrogen oxides

NSPS: New Source Performance Standards

O&M: operation and maintenance

O<sub>2</sub>: oxygen Pb: lead

PM: particulate matter

PM<sub>10</sub>: particulate matter with a mean aerodynamic

diameter of 10 microns or less

ppm: parts per million

ppmv: parts per million by volume

ppmvd: parts per million by volume, dry basis

QA: quality assurance QC: quality control

PSD: prevention of significant deterioration

psi: pounds per square inch PTE: potential to emit

RACT: reasonably available control technology

RATA: relative accuracy test audit

RBLC: EPA's RACT/BACT/LAER Clearinghouse

**SAM**: sulfuric acid mist **scf**: standard cubic feet

scfm: standard cubic feet per minute

SIC: standard industrial classification code

SIP: State Implementation Plan

SNCR: selective non-catalytic reduction (control system

used for reducing emissions of nitrogen oxides)

SO<sub>2</sub>: sulfur dioxide TPD: tons/day TPH: tons per hour TPY: tons per year TRS: total reduced sulfur

UTM: Universal Transverse Mercator coordinate system

VE: visible emissions

VOC: volatile organic compounds

#### **General Conditions**

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

- 1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- 2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- 3. As provided in subsections 403.987(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in this permit.
- 4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- 5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- 6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- 7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
  - a. Have access to and copy any records that must be kept under conditions of the permit;
  - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
  - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules. Reasonable time may depend on the nature of the concern being investigated.
- 8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
  - a. A description of and cause of noncompliance; and
  - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.
- 9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

#### **General Conditions**

- 10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard.
- 11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- 12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
- 13. This permit also constitutes:
  - a. Determination of Best Available Control Technology (not applicable);
  - b. Determination of Prevention of Significant Deterioration (PSD Avoidance); and
  - c. Compliance with New Source Performance Standards (not applicable).
- 14. The permittee shall comply with the following:
  - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - c. Records of monitoring information shall include:
    - (a) The date, exact place, and time of sampling or measurements;
    - (b) The person responsible for performing the sampling or measurements;
    - (c) The dates analyses were performed;
    - (d) The person responsible for performing the analyses;
    - (e) The analytical techniques or methods used;
    - (f) The results of such analyses.
- 15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

#### **Common Conditions**

Unless otherwise specified in the permit, the following conditions apply to all emissions units and activities at the facility.

#### **EMISSIONS AND CONTROLS**

- Plant Operation Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown
  of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as
  possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent
  information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and,
  where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the
  permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130,
  F.A.C.]
- 2. <u>Circumvention</u>: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]
- 3. Excess Emissions Allowed: Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed 2 hours in any 24-hour period unless specifically authorized by the Department for longer duration. Pursuant to Rule 62-210.700(5), F.A.C., the permit subsection may specify more or less stringent requirements for periods of excess emissions. Rule 62-210-700(Excess Emissions), F.A.C., cannot vary or supersede any federal NSPS or NESHAP provision. [Rule 62-210.700(1), F.A.C.]
- 4. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
- 5. Excess Emissions Notification: In case of excess emissions resulting from malfunctions, the permittee shall notify the Compliance Authority in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]
- 6. <u>VOC or OS Emissions</u>: No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]
- 7. Objectionable Odor Prohibited: No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rules 62-296.320(2) and 62-210.200(Definitions), F.A.C.]
- 8. <u>General Visible Emissions</u>: No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]
- 9. <u>Unconfined Particulate Emissions</u>: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

#### RECORDS AND REPORTS

- 10. <u>Records Retention</u>: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least 5 years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rule 62-213.440(1)(b)2, F.A.C.]
- 11. Emissions Computation and Reporting:
  - a. Applicability. This rule sets forth required methodologies to be used by the owner or operator of a facility for computing actual emissions, baseline actual emissions, and net emissions increase, as defined at Rule 62-210.200, F.A.C., and for computing emissions for purposes of the reporting requirements of subsection 62-210.370(3) and paragraph 62-212.300(1)(e), F.A.C., or of any permit condition that requires emissions be computed in accordance

#### **Common Conditions**

- with this rule. This rule is not intended to establish methodologies for determining compliance with the emission limitations of any air permit. [Rule 62-210.370(1), F.A.C.]
- b. Computation of Emissions. For any of the purposes set forth in subsection 62-210.370(1), F.A.C., the owner or operator of a facility shall compute emissions in accordance with the requirements set forth in this subsection.
  - (1) Basic Approach. The owner or operator shall employ, on a pollutant-specific basis, the most accurate of the approaches set forth below to compute the emissions of a pollutant from an emissions unit; provided, however, that nothing in this rule shall be construed to require installation and operation of any continuous emissions monitoring system (CEMS), continuous parameter monitoring system (CPMS), or predictive emissions monitoring system (PEMS) not otherwise required by rule or permit, nor shall anything in this rule be construed to require performance of any stack testing not otherwise required by rule or permit.
    - (a) If the emissions unit is equipped with a CEMS meeting the requirements of paragraph 62-210.370(2)(b), F.A.C., the owner or operator shall use such CEMS to compute the emissions of the pollutant, unless the owner or operator demonstrates to the department that an alternative approach is more accurate because the CEMS represents still-emerging technology.
    - (b) If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C, but emissions of the pollutant can be computed pursuant to the mass balance methodology of paragraph 62-210.370(2)(c), F.A.C., the owner or operator shall use such methodology, unless the owner or operator demonstrates to the department that an alternative approach is more accurate.
    - (c) If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., and emissions cannot be computed pursuant to the mass balance methodology, the owner or operator shall use an emission factor meeting the requirements of paragraph 62-210.370(2)(d), F.A.C., unless the owner or operator demonstrates to the department that an alternative approach is more accurate.
  - (2) Continuous Emissions Monitoring System (CEMS).
    - (a) An owner or operator may use a CEMS to compute emissions of a pollutant for purposes of this rule provided:
      - 1) The CEMS complies with the applicable certification and quality assurance requirements of 40 CFR Part 60, Appendices B and F, or, for an acid rain unit, the certification and quality assurance requirements of 40 CFR Part 75, all adopted by reference at Rule 62-204.800, F.A.C.; or
      - 2) The owner or operator demonstrates that the CEMS otherwise represents the most accurate means of computing emissions for purposes of this rule.
    - (b) Stack gas volumetric flow rates used with the CEMS to compute emissions shall be obtained by the most accurate of the following methods as demonstrated by the owner or operator:
      - 1) A calibrated flow meter that records data on a continuous basis, if available; or
      - 2) The average flow rate of all valid stack tests conducted during a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.
    - (c) The owner or operator may use CEMS data in combination with an appropriate f-factor, heat input data, and any other necessary parameters to compute emissions if such method is demonstrated by the owner or operator to be more accurate than using a stack gas volumetric flow rate as set forth at subparagraph 62-210.370(2)(b)2., F.A.C., above.
  - (3) Mass Balance Calculations.
    - (a) An owner or operator may use mass balance calculations to compute emissions of a pollutant for purposes of this rule provided the owner or operator:
      - 1) Demonstrates a means of validating the content of the pollutant that is contained in or created by all materials or fuels used in or at the emissions unit; and

#### **Common Conditions**

- 2) Assumes that the emissions unit emits all of the pollutant that is contained in or created by any material or fuel used in or at the emissions unit if it cannot otherwise be accounted for in the process or in the capture and destruction of the pollutant by the unit's air pollution control equipment.
- (b) Where the vendor of a raw material or fuel which is used in or at the emissions unit publishes a range of pollutant content from such material or fuel, the owner or operator shall use the highest value of the range to compute the emissions, unless the owner or operator demonstrates using site-specific data that another content within the range is more accurate.
- (c) In the case of an emissions unit using coatings or solvents, the owner or operator shall document, through purchase receipts, records and sales receipts, the beginning and ending VOC inventories, the amount of VOC purchased during the computational period, and the amount of VOC disposed of in the liquid phase during such period.

#### (4) Emission Factors.

- a. An owner or operator may use an emission factor to compute emissions of a pollutant for purposes of this rule provided the emission factor is based on site-specific data such as stack test data, where available, unless the owner or operator demonstrates to the department that an alternative emission factor is more accurate. An owner or operator using site-specific data to derive an emission factor, or set of factors, shall meet the following requirements.
  - If stack test data are used, the emission factor shall be based on the average emissions per unit of input, output, or gas volume, whichever is appropriate, of all valid stack tests conducted during at least a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.
  - 2) Multiple emission factors shall be used as necessary to account for variations in emission rate associated with variations in the emissions unit's operating rate or operating conditions during the period over which emissions are computed.
  - 3) The owner or operator shall compute emissions by multiplying the appropriate emission factor by the appropriate input, output or gas volume value for the period over which the emissions are computed. The owner or operator shall not compute emissions by converting an emission factor to pounds per hour and then multiplying by hours of operation, unless the owner or operator demonstrates that such computation is the most accurate method available.
- b. If site-specific data are not available to derive an emission factor, the owner or operator may use a published emission factor directly applicable to the process for which emissions are computed. If no directly-applicable emission factor is available, the owner or operator may use a factor based on a similar, but different, process.
- (5) Accounting for Emissions During Periods of Missing Data from CEMS, PEMS, or CPMS. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of missing data from CEMS, PEMS, or CPMS using other site-specific data to generate a reasonable estimate of such emissions.
- (6) Accounting for Emissions During Periods of Startup and Shutdown. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of startup and shutdown of the emissions unit.
- (7) Fugitive Emissions. In computing the emissions of a pollutant from a facility or emissions unit, the owner or operator shall account for the fugitive emissions of the pollutant, to the extent quantifiable, associated with such facility or emissions unit.
- (8) Recordkeeping. The owner or operator shall retain a copy of all records used to compute emissions pursuant to this rule for a period of five years from the date on which such emissions information is submitted to the department for any regulatory purpose.

#### **Common Conditions**

#### [Rule 62-210.370(2), F.A.C.]

- c. Annual Operating Report for Air Pollutant Emitting Facility
  - (1) The Annual Operating Report for Air Pollutant Emitting Facility (DEP Form No. 62-210.900(5)) shall be completed each year for the following facilities:
    - a. All Title V sources.
    - b. All synthetic non-Title V sources.
    - c. All facilities with the potential to emit ten (10) tons per year or more of volatile organic compounds or twenty-five (25) tons per year or more of nitrogen oxides and located in an ozone nonattainment area or ozone air quality maintenance area.
    - d. All facilities for which an annual operating report is required by rule or permit.
  - (2) Notwithstanding paragraph 62-210.370(3)(a), F.A.C., no annual operating report shall be required for any facility operating under an air general permit.
  - (3) The annual operating report shall be submitted to the appropriate Department of Environmental Protection (DEP) division, district or DEP-approved local air pollution control program office by April 1 of the following year. If the report is submitted using the Department's electronic annual operating report software, there is no requirement to submit a copy to any DEP or local air program office.
  - (4) Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C., for purposes of the annual operating report.
  - (5) Facility Relocation. Unless otherwise provided by rule or more stringent permit condition, the owner or operator of a relocatable facility must submit a Facility Relocation Notification Form (DEP Form No. 62-210.900(6)) to the Department at least 30 days prior to the relocation. A separate form shall be submitted for each facility in the case of the relocation of multiple facilities which are jointly owned or operated.

[Rule 62-210.370(3), F.A.C.]

#### **Common Testing Requirements**

Unless otherwise specified in the permit, the following testing requirements apply to all emissions units that require testing.

#### COMPLIANCE TESTING REQUIREMENTS

- 1. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]
- 2. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. [Rule 62-297.310(2), F.A.C.]
- 3. <u>Calculation of Emission Rate</u>: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

#### 4. Applicable Test Procedures:

- a. Required Sampling Time.
  - (1) Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
  - (2) Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
    - (a) For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
    - (b) The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
    - (c) The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
- b. Minimum Sample Volume. Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.

#### **Common Testing Requirements**

- c. Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.
- d. Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1.
- e. Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

TABLE 297.310-1 CALIBRATION SCHEDULE					
ITEM	MINIMUM CALIBRATION FREQUENCY	REFERENCE INSTRUMENT	TOLERANCE		
Liquid in glass thermometer	Annually	ASTM Hg in glass ref. thermometer or equivalent or thermometric points	+/-2%		
Bimetallic thermometer	Quarterly	Calibration liquid in glass	5° F		
Thermocouple	Annually	ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer	5° F		
Barometer	Monthly	Hg barometer or NOAA station	+/-1% scale		
Pitot Tube	When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Fig. 2-2 & 2-3		
Probe Nozzles	Before each test or when nicked, dented, or corroded	Micrometer	+/- 0.001" mean of at least three readings; Max. deviation between readings, 0.004"		
Dry Gas Meter and Orifice Meter	1. Full Scale: When received, when 5% change observed, annually	Spirometer or calibrated wet test or dry gas test meter	2%		
	2. One Point: Semiannually				
	3. Check after each test series	Comparison check	5%		

[Rule 62-297.310(4), F.A.C.]

#### 5. <u>Determination of Process Variables</u>:

- a. Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- b. Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

#### **Common Testing Requirements**

- 6. Sampling Facilities: The permittee shall install permanent stack sampling ports and provide sampling facilities that meet the requirements of Rule 62-297.310(6), F.A.C. Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must also comply with all applicable Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E.
  - a. Permanent Test Facilities. The owner or operator of an emissions unit for which a compliance test, other than a visible emissions test, is required on at least an annual basis, shall install and maintain permanent stack sampling facilities.
  - b. Temporary Test Facilities. The owner or operator of an emissions unit that is not required to conduct a compliance test on at least an annual basis may use permanent or temporary stack sampling facilities. If the owner chooses to use temporary sampling facilities on an emissions unit, and the Department elects to test the unit, such temporary facilities shall be installed on the emissions unit within 5 days of a request by the Department and remain on the emissions unit until the test is completed.
  - c. Sampling Ports.
    - (1) All sampling ports shall have a minimum inside diameter of 3 inches.
    - (2) The ports shall be capable of being sealed when not in use.
    - (3) The sampling ports shall be located in the stack at least 2 stack diameters or equivalent diameters downstream and at least 0.5 stack diameter or equivalent diameter upstream from any fan, bend, constriction or other flow disturbance.
    - (4) For emissions units for which a complete application to construct has been filed prior to December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 15 feet or less. For stacks with a larger diameter, four sampling ports, each 90 degrees apart, shall be installed. For emissions units for which a complete application to construct is filed on or after December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 10 feet or less. For stacks with larger diameters, four sampling ports, each 90 degrees apart, shall be installed. On horizontal circular ducts, the ports shall be located so that the probe can enter the stack vertically, horizontally or at a 45 degree angle.
    - (5) On rectangular ducts, the cross sectional area shall be divided into the number of equal areas in accordance with EPA Method 1. Sampling ports shall be provided which allow access to each sampling point. The ports shall be located so that the probe can be inserted perpendicular to the gas flow.
  - d. Work Platforms.
    - (1) Minimum size of the working platform shall be 24 square feet in area. Platforms shall be at least 3 feet wide.
    - (2) On circular stacks with 2 sampling ports, the platform shall extend at least 110 degrees around the stack.
    - (3) On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees around the stack.
    - (4) All platforms shall be equipped with an adequate safety rail (ropes are not acceptable), toe board, and hinged floor-opening cover if ladder access is used to reach the platform. The safety rail directly in line with the sampling ports shall be removable so that no obstruction exists in an area 14 inches below each sample port and 6 inches on either side of the sampling port.
  - e. Access to Work Platform.
    - (1) Ladders to the work platform exceeding 15 feet in length shall have safety cages or fall arresters with a minimum of 3 compatible safety belts available for use by sampling personnel.
    - (2) Walkways over free-fall areas shall be equipped with safety rails and toe boards.
  - f. Electrical Power.

#### **Common Testing Requirements**

- (1) A minimum of two 120-volt AC, 20-amp outlets shall be provided at the sampling platform within 20 feet of each sampling port.
- (2) If extension cords are used to provide the electrical power, they shall be kept on the plant's property and be available immediately upon request by sampling personnel.
- g. Sampling Equipment Support.
  - (1) A three-quarter inch eyebolt and an angle bracket shall be attached directly above each port on vertical stacks and above each row of sampling ports on the sides of horizontal ducts.
    - (a) The bracket shall be a standard 3 inch × 3 inch × one-quarter inch equal-legs bracket which is 1 and one-half inches wide. A hole that is one-half inch in diameter shall be drilled through the exact center of the horizontal portion of the bracket. The horizontal portion of the bracket shall be located 14 inches above the centerline of the sampling port.
    - (b) A three-eighth inch bolt which protrudes 2 inches from the stack may be substituted for the required bracket. The bolt shall be located 15 and one-half inches above the centerline of the sampling port.
    - (c) The three-quarter inch eyebolt shall be capable of supporting a 500 pound working load. For stacks that are less than 12 feet in diameter, the eyebolt shall be located 48 inches above the horizontal portion of the angle bracket. For stacks that are greater than or equal to 12 feet in diameter, the eyebolt shall be located 60 inches above the horizontal portion of the angle bracket. If the eyebolt is more than 120 inches above the platform, a length of chain shall be attached to it to bring the free end of the chain to within safe reach from the platform.
  - (2) A complete monorail or dual rail arrangement may be substituted for the eyebolt and bracket.
  - (3) When the sample ports are located in the top of a horizontal duct, a frame shall be provided above the port to allow the sample probe to be secured during the test.

[Rule 62-297.310(6), F.A.C.]

- 7. <u>Frequency of Compliance Tests</u>. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.
  - a. General Compliance Testing.
    - 1. The owner or operator of a new or modified emissions unit that is subject to an emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining an operation permit for such emissions unit.
    - 2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid and/or solid fuel for more than 400 hours other than during startup.
    - 3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to sub-subparagraph 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
      - (a) Did not operate; or
      - (b) In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours,
  - 4. During each federal fiscal year (October 1 September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

#### **Common Testing Requirements**

- (a) Visible emissions, if there is an applicable standard;
- (b) Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
- (c) c. Each NESHAP pollutant, if there is an applicable emission standard.
- 5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.
- 6. For fossil fuel steam generators on a semi-annual particulate matter emission compliance testing schedule, a compliance test shall not be required for any six-month period in which liquid and/or solid fuel is not burned for more than 200 hours other than during startup.
- 7. For emissions units electing to conduct particulate matter emission compliance testing quarterly pursuant to paragraph 62-296.405(2)(a), F.A.C., a compliance test shall not be required for any quarter in which liquid and/or solid fuel is not burned for more than 100 hours other than during startup.
- 8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.
- 9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
- 10. An annual compliance test conducted for visible emissions shall not be required for units exempted from air permitting pursuant to subsection 62-210.300(3), F.A.C.; units determined to be insignificant pursuant to subparagraph 62-213.300(2)(a)1., F.A.C., or paragraph 62-213.430(6)(b), F.A.C.; or units permitted under the General Permit provisions in paragraph 62-210.300(4)(a) or Rule 62-213.300, F.A.C., unless the general permit specifically requires such testing.
  - (a) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
  - (b) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of paragraph 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.]

#### **REPORTS**

#### 8. Test Reports:

- a. The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
- b. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

#### **Common Testing Requirements**

- c. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information.
  - (1) The type, location, and designation of the emissions unit tested.
  - (2) The facility at which the emissions unit is located.
  - (3) The owner or operator of the emissions unit.
  - (4) The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
  - (5) The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
  - (6) The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
  - (7) A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
  - (8) The date, starting time and duration of each sampling run.
  - (9) The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
  - (10) The number of points sampled and configuration and location of the sampling plane.
  - (11) For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
  - (12) The type, manufacturer and configuration of the sampling equipment used.
  - (13) Data related to the required calibration of the test equipment.
  - (14) Data on the identification, processing and weights of all filters used.
  - (15) Data on the types and amounts of any chemical solutions used.
  - (16) Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
  - (17) The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
  - (18) All measured and calculated data required to be determined by each applicable test procedure for each run.
  - (19) The detailed calculations for one run that relate the collected data to the calculated emission rate.
  - (20) The applicable emission standard and the resulting maximum allowable emission rate for the emissions unit plus the test result in the same form and unit of measure.
  - (21) A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

#### **MISCELLANEOUS**

9. Stack and Duct: The terms stack and duct are used interchangeably in this rule. [Rule 62-297.310(9), F.A.C.]

#### STATEMENT OF BASIS

## Santa Rosa Energy Center, LLC - Santa Rosa Energy Center

Facility ID No. 1130168 Santa Rosa County

Operated By: Calpine Operating Services Company, Inc.

Permit No. 1130168-010-AV

Title V Operation Permit Revision

#### APPLICANT

Acting on behalf of Santa Rosa Energy Center, LLC, the applicant for this project is Calpine Operating Services Company, Inc. The applicant's responsible official and mailing address are: Jason M. Goodwin, P.E., Director - Environmental, Health & Safety, 717 Texas Avenue, Suite 1000, Houston, Texas 77002.

#### **FACILITY DESCRIPTION**

The applicant operates the existing Santa Rosa Energy Center, which is located in Santa Rosa County at 5001 Sterling Way, Pace, Florida. The existing facility is a cogeneration plant and consists of one natural gas-fired nominal 167 megawatt combined-cycle combustion turbine-electrical generator with an unfired heat recovery steam generator, one 200-foot exhaust stack, an unregulated wet cooling tower, and a small natural gas preheater. The combustion turbine unit is equipped with General Electric's Dry Low-NO<sub>X</sub> combustion for natural gas. Emissions from the combustion turbine are also controlled by the use of pipeline natural gas and good combustion techniques. Drift eliminators are installed on the cooling tower to reduce particulate emissions. The facility is classified as a Title V major source, a Title IV acid rain source and a major stationary source subject to the Prevention of Significant Deterioration (PSD) of Air Quality.

## PROJECT DESCRIPTION

The purpose of this permitting project is to revise the existing Title V permit for the above referenced facility to incorporate the conditions of permit No. 1130168-009-AC (PSD-FL-253B), as described in the Project Review Section below.

#### PROCESSING SCHEDULE AND RELATED DOCUMENTS

Title V Air Operation Permit Renewal effective January 1, 2008.

1st Title V Air Operation Permit Revision issued March 12, 2009.

Application for a Title V Air Operation Permit Revision received June 1, 2010.

Draft/Proposed 2nd Title V Air Operation Permit Revision issued XXXX, XX, 2010.

## PRIMARY REGULATORY REQUIREMENTS

<u>Title III</u>: The facility is identified as a minor source of hazardous air pollutants (HAP).

Title IV: The facility operates units subject to the acid rain provisions of the Clean Air Act.

<u>Title V</u>: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

<u>PSD</u>: The facility is a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility operates units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

<u>CAIR</u>: The facility operates units subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

#### PROJECT REVIEW

This Title V air operation permit revision incorporates the specific conditions of permit No. 1130168-009-AC (PSD-FL-253B) to: remove obsolete conditions related to the duct burners which were never installed at the facility; clarify the 24-hour block average calculation; remove 40 CFR Part 75 missing data substitution requirements for concentration-based emissions; make clarifications to the excess emissions conditions resulting from start-up, shut-down, or malfunction; and, clarify Continuous Emissions Monitoring System (CEMS) Quality assurance requirements. No allowable limits or actual emissions are affected by these revisions.

To reflect the changes and conditions contained in permit No. 1130168-009-AC (PSD-FL-253B), the following conditions of the Title V permit are revised as indicated below. Strikethrough is used to denote the deletion of text. Double-underlines are used to denote the addition of text. All changes are emphasized with yellow highlight.

A.5. Turbine Capacity. The maximum heat input rate, based on the lower heating value (LHV) of the fuel at ambient conditions of 59°F temperature, 60% relative humidity, 100% load, and 14.7 psi pressure shall not exceed 1,780 million Btu per hour (MMBtu/hr). This maximum heat input rate will vary depending upon ambient conditions and the combustion turbine characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other ambient conditions shall be were to have been provided to the Department of Environmental Protection (DEP) within 45 days of completing the initial compliance testing. The manufacturer's curves shall be reestablished and resubmitted to DEP within 45 days following the replacement of any combustion turbine components or major turbine tuning session that could reasonably affect the performance of the turbine.

[Rule 62-210.200, F.A.C. (Definitions - Potential Emissions); 1130168-001-AC, Specific Condition 9; and, 1130168-009-AC (PSD-FL-253B), Specific Condition 2.]

## A.11. Nitrogen Oxides (NO<sub>X</sub>) Emissions.

- The concentration of NO<sub>X</sub> in the stack exhaust gas, with the combustion turbine operating and the duct burner on shall not exceed 9.8 ppmvd at 15% O<sub>2</sub> (24-hr block average), and with the combustion turbine operating and the duct burner off shall not exceed 9 ppmvd at 15% O<sub>2</sub> (24-hour block average). Emissions of NO<sub>X</sub> in the stack exhaust gas (at ISO conditions) with the combustion turbine operating shall not exceed 106 pounds per hour (lb/hr) with the duct burner on and 64.1 lb/hr with the duct burner off to be as demonstrated by initial stack test. [40 CFR 60 Subpart GG, Subpart Da and Rule 62-212.400, F.A.C.]
- When NO<sub>X</sub> monitoring data are not available, substitution for missing data shall be handled as required by Title IV (40 CFR 75) to calculate any specified average time. Part 75 missing data, start up and shut down emissions as defined in condition 27 of this permit will not be included in the daily ppmvd averages.

[40 CFR 60 Subpart GG; Rule 62-212.400, F.A.C.; and 1130168-001-AC, Specific Condition 21; and 1130168-009-AC (PSD-FL-253B), Specific Condition 3

A.15. 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. Excess emissions occurrences shall in no case exceed two hours (120 minutes) in any operating day 24 hour period except during either "cold start-up" to or shutdowns from cogeneration and/or combined-cycle plant operation. During cold start-up 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. 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. a complete shutdown lasting at least 48 hours. [Applicant Request, G.E. Combined-Cycle

Startup Curves Data; Rules 62-210.700(1) and (2), F.A.C.; and 1130168-001-AC, Specific Condition 27; and, 1130168-009-AC (PSD-FL-253B), Specific Condition 4.

{Permitting Note: GE defines the lowest stable load normal operation as Mode 6.}

- **A.20.** Continuous compliance with the NO<sub>X</sub> emission limits. Continuous compliance with the NO<sub>X</sub> emission limits shall be demonstrated with the CEM system based on the applicable averaging time of 24-hr block average (DLN). Based on CEMS data, a separate compliance determination is conducted at the end of each operating day (midnight). The compliance determination shall be the arithmetic average of all valid hourly emission rates from the previous operating day collected from midnight to midnight and a new average emission rate is calculated from the arithmetic average of all valid hourly emission rates from the previous operating day. Valid hourly emission rates shall not include periods of start up, shutdown, or malfunction, which are excused under Specific Condition A.15., unless prohibited by 62-210.700, F.A.C. A valid hourly emission rate shall be calculated for each hour in which at least two NO<sub>X</sub> concentrations are obtained at least 15 minutes apart. These excess emissions periods shall be reported as required in Specific Condition A.17.
  - [Rules 62-4.070 and 62-210.700, F.A.C.; 40 CFR 75; and 1130168-001-AC, Specific Condition 32; and, 1130168-009-AC, Specific Condition 5.
- A33. Continuous Monitoring System Reports. The monitoring devices shall comply with the certification requirements of each device and quality assurance, and any other applicable requirements of Rule 62 297.520, F.A.C., 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5) or 40 CFR Part 75. Quality assurance procedures must conform to all applicable sections of 40 CFR 60, Appendix F or 40 CFR 75, as applicable. The monitoring plan, consisting of data on CEM equipment specifications, manufacturer, type, calibration and maintenance needs, and its proposed location shall be provided to the DEP Emissions Monitoring Section Administrator and EPA for review no later than 45 days prior to the first scheduled certification test pursuant to 40 CFR 75.62.

[1130168-001-AC, Specific Condition 44 and 1130168-009-AC, Specific Condition 6.]

## CONCLUSION

This project is the second revision to Title V air operation permit No. 1130168-007-AV, which was effective on January 1, 2008. This Title V air operation permit revision is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210, 62-213 and 62-214, F.A.C.

## Santa Rosa Energy Center, LLC - Santa Rosa Energy Center

Operator: Calpine Operating Services Company, Inc.

Responsible Official: Mr. Dane Hill (Calpine Operating Services, Inc.)

Facility ID No. 1130168

Santa Rosa County

# Title V Air Operation Permit Revision

## Draft/Proposed Permit No. 1130168-010-AV

(2<sup>nd</sup> Revision to Permit No. 1130168-007-AV)

## Permitting Authority:

State of Florida
Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
Title V Section

Mail Station #5505 2600 Blair Stone Road Tallahassee, Florida 32399-2400

Telephone: 850/488-0114 Fax: 850/921-9533

## Compliance Authority:

Department of Environmental Protection Northwest District Office

160 Governmental Center, Suite 308 Pensacola, Florida 32502-5794

Telephone: 850/595-8300 Fax: 850/595-8096

## Title V Air Operation Permit Revision

Permit No. 1130168-010-AV

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## (DRAFT/PROPOSED)

Permittee:

Santa Rosa Energy Center, LLC 5001 Sterling Way Pace, Florida 32571 Permit No. 1130168-010-AV Facility ID No. 1130168

SIC No. 4911

**Project:** Title V Air Operation Permit Revision

This project is the second revision to Title V air operation permit No. 1130168-007-AV for the Santa Rosa Energy Center, which is an existing electrical power plant located in Santa Rosa County at 5001 Sterling Way, Pace. UTM Coordinates are: Zone 16, 488.970 km East and 3381.350 km North; and, Latitude: 30° 33' 58" North and Longitude: 87° 06' 54" West. This revision incorporates previously issued permit No. 1130168-008-AV (CAIR) and the revised conditions from construction permit No. 1130168-009-AC/PSD-FL-253B, which was issued concurrently with this project.

The permit conditions which were revised as part of this draft/proposed revision project are emphasized with <u>yellow highlight</u>. <u>Strikethrough</u> is used to denote the deletion of text. <u>Double-underlines</u> are used to denote the addition of text.

This Title V Air Operation Permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213 and 62-214. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

1130168-007-AV Effective Date: January 1, 2008 1130168-008-AV 1<sup>st</sup> Revision Effective Date: March 16, 2009

1130168-010-AV 2<sup>nd</sup> Revision Effective Date: (Day 55)

Renewal Application Due Date: May 20, 2012

Expiration Date: December 31, 2012

(Draft/Proposed)

Joseph Kahn, Director Division of Air Resource Management

JK/tlv/jkh/yha

## Subsection A. Facility Description.

This is an existing facility located on the site of the steam host, Sterling Fiber, which is a manufacturer of acrylonitrile-based fibers. It is a cogeneration plant and consists of one natural gas-fired nominal 167 megawatt combined-cycle combustion turbine-electrical generator with a heat recovery steam generator, one 200-foot exhaust stack, an unregulated wet cooling tower, and a small natural gas preheater. The combustion turbine unit is equipped with General Electric's Dry Low-NO<sub>X</sub> combustion for natural gas. Emissions from the combustion turbine are also controlled by the use of pipeline natural gas and good combustion techniques. Drift eliminators are installed on the cooling tower to reduce particulate emissions.

Also included in this permit are miscellaneous insignificant emissions units and/or activities.

Based on the Title V permit renewal application received June 28, 2007, this facility is *not* a major source of hazardous air pollutants (HAP).

## Subsection B. Summary of Emissions Units and Brief Descriptions.

ARMS <sup>1</sup> No.	Brief Description
001	One nominal 167 megawatt gas combined-cycle combustion turbine-electrical
001	generator with heat recovery steam generator.

Unregulated Emissions Units and/or Activities

Om of anatou Bit	Sin egatated Ethiopichic Cinto and of 11eti viteo								
003	Wet cooling tower.								

<sup>&</sup>lt;sup>1</sup> Air Resource Management System

Please reference the Permit No., Facility ID No., and appropriate Emissions Units ID Nos. on all correspondence, test report submittals, applications, etc.

## The following conditions apply facility-wide:

- 1. <u>Appendices</u>. The appendices identified in the table of contents are attached as an enforceable part of this permit unless otherwise indicated.
- 2. Not federally enforceable. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320(2), F.A.C.]
- 3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than 20 percent opacity. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. [Rules 62-296.320(4)(b)1. & 4., F.A.C.]
- 4. Prevention of Accidental Releases (Section 112(r) of CAA).
  - a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center Post Office Box 10162 Fairfax, VA 22038 Telephone: (703) 227-7650

- b. The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C. [40 CFR 68]
- 5. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, VOC or OS without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1)(a), F.A.C.]
- 6. Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter. [Rule 62-296.320(4)(c)2., F.A.C.]
- 7. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one. [Rule 62-213.440, F.A.C.]
- 8. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted to the Department and EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C. [Rules 62-213.440(3) and 62-213.900, F.A.C.]

#### SECTION II. FACILITY-WIDE CONDITIONS.

9. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Northwest District Office.

Department of Environmental Protection Northwest District Office 160 Governmental Center Pensacola, Florida 32501-5794 Telephone: 850/595-8300 Fax: 850/595-8096

10. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Air and EPCRA Enforcement Branch, Air Enforcement Section
61 Forsyth Street
Atlanta, Georgia 30303
Telephone: 404/562-9155, Fax: 404/562-9164

11. Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information. [Rule 62-213.420(4), F.A.C.]

Subsection A. Emissions Unit 001

## Subsection A. This section addresses the following emissions unit.

ARMS No.	Brief Description
001	One nominal 167 megawatt gas combined-cycle combustion turbine-electrical
001	generator.

This emissions unit consist of one natural gas fired nominal 167 megawatt (MW) General Electric (Frame 7F design) combined-cycle combustion turbine-electrical generator with a Spray Inlet Temperature Suppression (SPRITS) system, and one 200-foot exhaust stack. The unit is equipped with a Dry Low-NO<sub>X</sub> (DLN) combustor. A continuous emissions monitoring system (CEMS) monitors NO<sub>X</sub> from the combustion turbine.

{Permitting note: This emissions unit is regulated under Acid Rain-Phase II, 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted by reference in Rule 62-204.800(7)(b), F.A.C., Rule 212.400, F.A.C., Prevention of Significant Deterioration (PSD), Best Available Control Technology (BACT), and Air Construction Permit 1130168-001-AC (PSD-FL-253).}

Compliance Assurance Monitoring (CAM) does not apply to this emissions unit because there is no add-on control technology in use.

## The following specific conditions apply to the emissions unit listed above:

## General

- A.1. NSPS Provisions. The gas turbine is subject to the federal New Source Performance Standards (NSPS) in Subpart GG of 40 CFR 60. See Appendix NA (NSPS General Provisions) and NGG (NSPS Subpart GG Provisions) for Gas Turbines. [40 CFR 60, Subparts A and GG]
- A.2. <u>Definitions.</u> For the purposes of Rule 62-204.800(7), F.A.C., the definitions contained in the various provisions of 40 CFR 60 shall apply, except that the term "Administrator" when used in 40 CFR 60 shall mean the Secretary or the Secretary's designee. [40 CFR 60.2; and Rule 62-204.800(7)(a), F.A.C.]
- A.3. Concealment. No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

  [40 CFR 60.12]
- A.4. <u>Circumvention.</u> The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.; and 1130168-001-AC, Specific Condition 14.]

## **Essential Potential to Emit (PTE) Parameters**

A.5. <u>Turbine Capacity</u>. The maximum heat input rate, based on the lower heating value (LHV) of the fuel at ambient conditions of 59°F temperature, 60% relative humidity, 100% load, and 14.7 psi pressure shall not exceed 1,780 million Btu per hour (MMBtu/hr). This

#### Subsection A. Emissions Unit 001

maximum heat input rate will vary depending upon ambient conditions and the combustion turbine characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other ambient conditions shall be were to have been provided to the Department of Environmental Protection (DEP) within 45 days of completing the initial compliance testing. The manufacturer's curves shall be reestablished and resubmitted to DEP within 45 days following the replacement of any combustion turbine components or major turbine tuning session that could reasonably affect the performance of the turbine.

[Rule 62-210.200, F.A.C. (Definitions - Potential Emissions); 1130168-001-AC, Specific Condition 9; and, 1130168-009-AC (PSD-FL-253B), Specific Condition 2.]

- A.6. Methods of Operation -- Fuel. Only pipeline natural gas shall be fired in this unit. [Rule 62-210.200, F.A.C. (Definitions Potential Emissions); and 1130168-001-AC, Specific Condition 8.]
- A.7. Hours of Operation. Maximum allowable hours of operation for the Cogeneration Plant are 8760 hours per year.
   [Rules 62-4.160(2), 62-210.200(PTE), and 62-212.400, F.A.C.; and 1130168-001-AC, Specific Condition 15.]

## **Control Technology**

- A.8. A Dry Low NO<sub>X</sub> (DLN) combustor is used on the stationary combustion turbine to comply with the NO<sub>X</sub> emissions limits listed in Specific Conditions A.10. and A.11. [Rules 62-4.070 and 62-212.400, F.A.C.; and 1130168-001-AC, Specific Condition 16.]
- A.9. The permittee shall provide manufacturer's emissions performance versus load diagrams for the DLN system. The DLN system shall be tuned to optimize emissions reductions consistent with normal operation and maintenance practices and shall be maintained to minimize NO<sub>X</sub> emissions and CO emissions, consistent with normal operation and maintenance practices.

  [Rules 62-4.070 and 62-210.650, F.A.C.; and 1130168-001-AC, Specific Condition 19.1]

## **Emission Limitations and Standards**

{Permitting note: Appendix P, Permit Summary Tables, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

**A.10.** The following table is a summary of the BACT determination, and is followed by the applicable specific conditions. Values for NO<sub>X</sub> are corrected to 15% O<sub>2</sub>. These limits or their equivalent in terms of lb/hr (ISO conditions) or NSPS units, as well as the applicable averaging times, are followed by the applicable specific conditions.

#### Subsection A. Emissions Unit 001

Operational Mode	NO <sub>X</sub> (ppmvd)	CO (ppmvd)	VE (% opacity)	SO <sub>2</sub> (gr S per 100 scf)	Comments
Combustion turbine on	9 (24-hr)	9 (29 lb/hr)	10	2 (fuel)	Pipeline Natural Gas
DLN	, ,	, , ,			Good Combustion

[Rules 62-212.400, 62-204.800(7)(b) (Subpart GG), 62-210.200 (Definitions-Potential Emissions) F.A.C.; and 1130168-001-AC, Specific Condition 20.]

## A.11. Nitrogen Oxides (NO<sub>X</sub>) Emissions.

- The concentration of NO<sub>X</sub> in the stack exhaust gas with the combustion turbine operating shall not exceed 9 ppmvd at 15% O<sub>2</sub> (24-hour block average). Emissions of NO<sub>X</sub> in the stack exhaust gas (at ISO conditions) with the combustion turbine operating shall not exceed 64.1 lb/hr as demonstrated by initial stack test.
- When NO<sub>X</sub> monitoring data are not available, substitution for missing data shall be handled as required by Title IV (40 CFR 75) to calculate any specified average time.
   Part 75 missing data, start up and shut down emissions as defined in Specific Condition A.15. of this permit will not be included in the daily ppmvd averages.

[40 CFR 60 Subpart GG; Rule 62-212.400, F.A.C.; and 1130168-001-AC, Specific Condition 21; and, 1130168-009-AC, Specific Condition 3.]

- A.12. Carbon Monoxide (CO) Emissions. Emissions of CO in the stack exhaust gas (at ISO conditions) with the combustion turbine operating shall exceed neither 9 ppmvd nor 29 lb/hr to be demonstrated by stack test using EPA Method 10.

  [Rule 62-212.400, F.A.C.; and 1130168-001-AC, Specific Condition 22.]
- A.13. Sulfur Dioxide (SO<sub>2</sub>) Emissions. SO<sub>2</sub> emissions shall be limited by firing only pipeline natural gas (sulfur content less than 2 grains per 100 standard cubic feet). Compliance with this requirement, in conjunction with implementation of the Custom Fuel Monitoring Schedule in Specific Condition A.34, will demonstrate compliance with the applicable NSPS SO<sub>2</sub> emissions limitations from the combustion turbine.

  [40CFR60 Subpart GG; Rules 62-4.070, 62-212.400, and 62-204.800(7), F.A.C; 1130168-001-AC, Specific Condition 24.; and Applicant Request.]
- A.14. <u>Visible Emissions (VE)</u>. VE emissions shall serve as a surrogate for particulate matter emissions, and shall not exceed 10% opacity from the stack.
   [Rules 62-4.070, 62-212.400, and 62-204.800(7), F.A.C.; and 1130168-001-AC, Specific Condition 26.]

## **Excess Emissions**

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.}

**A.15.** 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. Excess emissions occurrences shall in no case exceed two

#### Subsection A. Emissions Unit 001

hours (120 minutes) in any operating day 24 hour period except during either "cold start-up" to or shutdowns from cogeneration and/or combined-cycle plant operation. During cold start-up 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. 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. a complete shutdown lasting at least 48 hours.

[G.E. Combined-Cycle Startup Curves Data; Rules 62-210.700(1) and (2), F.A.C.; and 1130168-001-AC, Specific Condition 27; and, 1130168-009-AC, Specific Condition 4,]

{Permitting Note: GE defines the lowest stable load normal operation as Mode 6.}

- A.16. Excess emissions entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction, shall be prohibited pursuant to Rule 62-210.700, F.A.C. These emissions shall be included in the 24-hr average for NO<sub>x</sub>.
  [Rule 62-210.700(4), F.A.C.; and 1130168-001-AC, Specific Condition 28.]
- A.17. Excess Emissions Report. If excess emissions occur for more than two hours due to malfunction, the owner or operator shall notify the Department's Northwest District Office within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the New Source Performance Standards, all excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A (See Appendix NA). Following this format, 40 CFR 60.7, periods of startup, shutdown, malfunction, shall be monitored, recorded, and reported as excess emissions when emission levels exceed the permitted standards listed in Specific Conditions No. A.10. and A.11.

  [Rules 62-4.130, 62-204.800, 62-210.700(6), F.A.C.; 40 CFR 60.7; and 1130168-001-AC, Specific Condition 29.]

#### **Test Methods and Procedures**

{Permitting note: Appendix P, Permit Summary Tables, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

- **A.18.** Compliance with the allowable emission limiting standards shall be determined *annually* by using the following reference methods as described in 40 CFR 60, Appendix A, and adopted by reference in Chapter 62-204.800, F.A.C. [1130168-001-AC, Specific Condition 30.]
- A.19. Annual compliance tests shall be performed during every federal fiscal year (October 1 September 30) pursuant to Rule 62-297.310(7), F.A.C., on this unit as indicated. In the event that the facility does not combust natural gas for greater than 400 hours during the fiscal year, the requirement for annual compliance tests shall be waived. The following reference methods shall be used. No other test methods may be used for compliance testing unless prior DEP approval is received in writing.

#### Subsection A. Emissions Unit 001

- EPA Reference Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources".
- EPA Reference Method 10, "Determination of Carbon Monoxide Emissions from Stationary Sources".

[1130168-001-AC, Specific Condition 31.]

A.20. Continuous compliance with the NO<sub>X</sub> emission limits. Continuous compliance with the NO<sub>X</sub> emission limits shall be demonstrated with the CEM system based on the applicable averaging time of 24-hr block average (DLN). Based on CEMS data, a separate compliance determination is conducted at the end of each operating day (midnight). The compliance determination shall be the arithmetic average of all valid hourly emission rates from the previous operating day collected from midnight to midnight and a new average emission rate is calculated from the arithmetic average of all valid hourly emission rates from the previous operating day. Valid hourly emission rates shall not include periods of start up, shutdown, or malfunction, which are excused under Specific Condition A.15, unless prohibited by 62-210.700, F.A.C. A valid hourly emission rate shall be calculated for each hour in which at least two NO<sub>X</sub> concentrations are obtained at least 15 minutes apart. These excess emissions periods shall be reported as required in Specific Condition A.17.

[Rules 62-4.070 and 62-210.700, F.A.C.; 40 CFR 75; and 1130168-001-AC, Specific Condition 32; and, 1130168-009-AC, Specific Condition 5.]

- A.21. Compliance with the SO<sub>2</sub> and PM/PM<sub>10</sub> emission limits. Notwithstanding the requirements of Rule 62-297.340, F.A.C., the use of pipeline natural gas is the method for determining compliance for SO<sub>2</sub> and PM<sub>10</sub>. For the purposes of demonstrating compliance with the 40 CFR 60.333 SO<sub>2</sub> standard, ASTM methods D4084-82 or D3246-81 (or equivalent) for sulfur content of gaseous fuel shall be utilized in accordance with the EPA-approved custom fuel monitoring schedule or natural gas supplier data may be submitted or the natural gas sulfur content referenced in 40 CFR 75 Appendix D may be utilized. However, the applicant is responsible for ensuring that the procedures in 40 CFR 60.335 or 40 CFR 75 are used when determination of fuel sulfur content is made. Analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency pursuant to 40 CFR 60.335(e). [1130168-001-AC, Specific Condition 33.]
- A.22. Compliance with CO emission limit. Annual compliance testing for CO may be conducted at less than capacity when compliance testing is conducted concurrent with the annual RATA testing for the NO<sub>X</sub> CEMS required pursuant to 40 CFR 75. [1130168-001-AC, Specific Condition 34.]
- A.23. Testing procedures. Testing of emissions shall be conducted with the combustion turbine operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum heat input rate allowed by the permit, corrected for the average ambient air temperature during the test (with 100 percent represented by a curve depicting heat input vs. ambient temperature). If it is impracticable to test at permitted capacity, the source may be tested at less than permitted capacity. In this case, subsequent operation is limited by adjusting the entire heat input vs. ambient temperature curve downward by an increment equal to the difference between the maximum permitted heat input (corrected for ambient temperature) and 110 percent of the value reached during the test until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for

#### Subsection A. Emissions Unit 001

- no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity. Procedures for these tests shall meet all applicable requirements (i.e., testing time frequency, minimum compliance duration, etc.) of Chapters 62-204 and 62-297, F.A.C. [1130168-001-AC, Specific Condition 36.]
- A.24. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

A.25. <u>Calculation of Emission Rate</u>. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

## A.26. Applicable Test Procedures.

- (a) Required Sampling Time.
  - Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
  - 2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
    - a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
    - b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.

#### Subsection A. Emissions Unit 001

- c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
- (b) <u>Minimum Sample Volume</u>. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.
- (c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
- (d) <u>Calibration of Sampling Equipment</u>. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1.

## TABLE 297.310-1 CALIBRATION SCHEDULE

ITEM	MINIMUM CALIBRATION FREQUENCY	REFERENCE INSTRUMENT	TOLERANCE
Liquid in glass thermometer	Annually	ASTM Hg in glass reference thermometer or equivalent, or thermometric points	+/-2%
Bimetallic thermometer	Quarterly	Calibration liquid in glass thermometer	5 degrees F
Thermocouple	Annually	ASTM Hg in glass reference thermometer, NBS calibrated reference and potentiometer	5 degrees F
Barometer	Monthly	Hg barometer or NOAA station	+/-1% scale
Pitot Tube	When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Figures 2-2 and 2-3
Probe Nozzles	Before each test, or when nicked, dented, or corroded	Micrometer	+/-0.001" mean of the last three readings; maximum deviation between readings .004"
Dry gas meter and Orifice Meter	<ol> <li>Full scale: when received, when 5% change observed, annually.</li> <li>One point: Semiannually.</li> <li>Check after each test series.</li> </ol>	Spirometer or calibrated wet test or dry gas test meter  Comparison check	5%

#### Subsection A. Emissions Unit 001

(e) <u>Allowed Modification to EPA Method 5</u>. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

[Rule 62-297.310(4), F.A.C.]

#### A.27. Determination of Process Variables.

- (a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- (b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.; and 1130168-001-AC, Specific Condition 46.]

- A.28. The permittee shall comply with the requirements contained in Appendix STR, Stack Testing Requirements, attached to this permit. [Rule 62-297.310(6), F.A.C.]
- A.29. The permittee shall design the emission units to accommodate adequate testing and sampling locations for compliance with the applicable emission limits.

  [Rules 62-4.070 and 62-204.800, F.A.C.; and 1130168-001-AC, Specific Condition 18.]
- **A.30.** <u>Frequency of Compliance Tests</u>. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.
  - (a) General Compliance Testing.
    - 3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
      - a. Did not operate; or
      - b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours.
    - 4. During each federal fiscal year (October 1 -- September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
      - a. Visible emissions, if there is an applicable standard;
      - b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more

#### Subsection A. Emissions Unit 001

- of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
- c. Each NESHAP pollutant, if there is an applicable emission standard.
- 5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.
- 9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
- 10. An annual compliance test conducted for visible emissions shall not be required for units exempted from permitting at Rule 62-210.300(3)(a), F.A.C., or units permitted under the General Permit provisions at Rule 62-210.300(4), F.A.C.
- (b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
- (c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

  [Rule 62-297.310(7), F.A.C.; SIP approved; and 1130168-001-AC, Specific Condition 38.]

## **Monitoring of Operations**

- **A.31.** Continuous Monitoring System. The permittee shall calibrate, maintain, and operate a continuous emission monitor in the stack to measure and record the nitrogen oxides emissions from this unit. Periods when NO<sub>X</sub> emissions (ppmvd @ 15% oxygen) are above the BACT standards, listed in Specific Conditions **A.10.** and **A.11** shall be reported to the Department's Northwest District Office within one working day (verbally) followed up by a written explanation not later than three (3) working days (alternately by facsimile within one working day).
  - [Rules 62-204.800, 62-210.700, 62-4.130, and 62-4.160(8), F.A.C.; 40 CFR 60.7; and 130168-001-AC, Specific Condition 42.].
- A.32. CEMS for Reporting Excess Emissions. Subject to EPA approval, the NO<sub>X</sub> CEMS shall be used in lieu of the requirement for reporting excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG. Upon a request from the Department, the CEMS emission rates for NO<sub>X</sub> on the CT shall be corrected to ISO conditions to demonstrate compliance with the NO<sub>X</sub> standard established in 40 CFR 60.332. [1130168-001-AC, Specific Condition 43.]

#### Subsection A. Emissions Unit 001

- A.33. Continuous Monitoring System Reports. The monitoring devices shall comply with the certification requirement of each device and quality assurance, and any other applicable requirements of Rule 62-297.520, F.A.C., 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5) or 40 CFR Part 75. Quality assurance procedures must conform to all applicable sections of 40 CFR 60, Appendix F or 40 CFR 75, as applicable. The monitoring plan, consisting of data on CEM equipment specifications, manufacturer, type, calibration and maintenance needs, and its proposed location shall be provided to the DEP Emissions Monitoring Section Administrator and EPA for review no later than 45 days prior to the first scheduled certification test pursuant to 40 CFR 75.62.

  [1130168-001-AC, Specific Condition 44 and 1130168-009-AC, Specific Condition 6.]
- A.34. Natural Gas Monitoring Schedule. A custom fuel monitoring schedule pursuant to 40 CFR 75 Appendix D for natural gas may be used in lieu of the daily sampling requirements of 40 CFR 60.334 (b)(2) provided the following requirements are met:
  - The permittee shall apply for an Acid Rain permit within the deadlines specified in 40 CFR 72.30. (The Phase II Acid Rain Permit Application for the facility was deemed complete on September 7, 2007. See Section IV, Acid Rain Part, of this permit.)
  - The permittee shall submit a monitoring plan, certified by signature of the Designated Representative, that commits to using a primary fuel of pipeline supplied natural gas (sulfur content less than 2 gr/100 scf pursuant to 40 CFR 75.11(d)(2)).
  - Each unit shall be monitored for SO<sub>2</sub> emissions using methods consistent with the requirements of 40 CFR 75 and certified by the USEPA.
  - This custom fuel monitoring schedule will only be valid when pipeline natural gas is used as a primary fuel. If the primary fuel for these units is changed to a higher sulfur fuel, SO<sub>2</sub> emissions must be accounted for as required pursuant to 40 CFR 75.11(d). [1130168-001-AC, Specific Condition 45.]

#### **Training Requirements**

A.35. Operating Procedures. Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment.

[Rule 62-4.070(3), F.A.C.; and 1130168-001-AC, Specific Condition 13.]

## Recordkeeping and Reporting Requirements

- A.36. <u>Test Notification</u>. The Department's Northwest District Office shall be notified, in writing, at least 15 days before the annual compliance tests. [1130168-001-AC, Specific Condition 37.]
- A.37. <u>Test Results.</u> Compliance test results shall be submitted to the Department's Northwest District Office no later than 45 days after completion of the last test run. [Rule 62-297.310(8), F.A.C.; and 1130168-001-AC, Specific Condition 39.]
- **A.38.** Records. All measurements, records, and other data required by this permit shall be recorded in a permanent form and retained for at least **five** years following the date on

#### Subsection A. Emissions Unit 001

which such measurements, records, or data are recorded. These records shall be made available to the Department upon request. [1130168-001-AC, Specific Condition 40.]

A.39. Malfunction Reporting. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rule 62-210.700(6), F.A.C.]

#### A.40. Test Reports.

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
- (b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
  - 1. The type, location, and designation of the emissions unit tested.
  - 2. The facility at which the emissions unit is located.
  - 3. The owner or operator of the emissions unit.
  - 4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
  - 5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
  - 6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
  - 7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
  - 8. The date, starting time and duration of each sampling run.
  - 9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
  - 10. The number of points sampled and configuration and location of the sampling plane.
  - 11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
  - 12. The type, manufacturer and configuration of the sampling equipment used.
  - 13. Data related to the required calibration of the test equipment.
  - 14. Data on the identification, processing and weights of all filters used.
  - 15. Data on the types and amounts of any chemical solutions used.
  - 16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.

#### Subsection A. Emissions Unit 001

- 17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
- 18. All measured and calculated data required to be determined by each applicable test procedure for each run.
- 19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
- 20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
- 21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

  [Rule 62-297.310(8), F.A.C.; and 1130168-001-AC, Specific Condition 41.]

#### SECTION IV. ACID RAIN PART.

#### Federal Acid Rain Provisions

## Santa Rosa Energy Center

ORIS code: 55242

The emissions unit listed below is regulated under Acid Rain Part, Phase II.

ARMS No.	Description
001	One nominal 167 megawatt gas combined-cycle combustion turbine-electrical generator.

1. The Phase II permit application submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of this acid rain unit must comply with the standard requirements and special provisions set forth in the following application:

DEP Form No. 62-210.900(1)(a) signed by the Designated Representative on September 5, 2007.

[Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

2. SO<sub>2</sub> allowance allocations requirements for the Acid Rain unit are:

ARMS No.	EPA ID#	Year	2008	2009	2010	2011	2012
001	CT-1	SO <sub>2</sub> allowances to be determined by U.S. EPA.	0	0	0	0	0

- 3. <u>Emission Allowances</u>. Emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.
  - a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.
  - **b.** No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.
  - c. Allowances shall be accounted for under the Federal Acid Rain Program. [Rule 62-213.440(1)(c)1., 2. & 3., F.A.C.]
- Where an applicable requirement of the Act is more stringent than applicable regulations promulgated under Title IV of the Act, both provisions shall be incorporated into the permit and shall be enforceable by the Administrator.
  [40 CFR 70.6(a)(1)(ii); and, Rule 62-210.200, F.A.C., Definitions Applicable Requirements.]

#### SECTION V. CAIR PART FORM

#### **CLEAN AIR INTERSTATE RULE PROVISIONS**

## Clean Air Interstate Rule (CAIR).

Operated by: Calpine Operating Services Company, Inc.

Plant Name: Santa Rosa Energy Center

ORIS Code: 55242

The emissions unit below is regulated under the Clean Air Interstate Rule.

E.U. ID No.	EPA Unit ID#	Brief Description					
-001	CT-1	One nominal 167 megawatt gas combined-cycle combustion turbine-					
		electrical generator with heat recovery steam generator					

Clean Air Interstate Rule Application. The Clean Air Interstate Rule Part Form submitted for this facility is a part of
this permit. The owners and operators of these CAIR units as identified in this form must comply with the standard
requirements and special provisions set forth in the CAIR Part Form (DEP Form No. 62-210.900(1)(b) - Form,
Effective: 3/16/08), which is attached at the end of this section. [Chapter 62-213, F.A.C. and Rule 62-210.200,
F.A.C.]

## SECTION V. CAIR PART FORM

## CLEAN AIR INTERSTATE RULE PROVISIONS

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Clean Air Interstate Rule (CAIR) Part  For more information, see instructions and refer to 40 CFR 96.121, 96.122, 96.221, 96.222, 96.321 and 96.3224 a								
STEP 1 Identify the source by plant name and ORIS or EIA plant code	Plant Name: Santa Rosa	Energy Center			State: Florida	ORIS 552	6 or EIA Plant Code	
STEP 2	4	ь	c	d	6		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 dloxide (SO <sub>2</sub> ) allowances in accordance with 40 CFR 96.206(c)(1)	Unit will hold NO <sub>X</sub> Ozon Season allowances in accordance with 40 CFR 96.306(c)(1)	Expecte	d ce cial	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).	CAMD ID CT-1 DEP ID EU001	х	х	х				
For new units, enter the requested information in columns "e" and "f.								
				,			_	
					_	,		

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#### CLEAN AIR INTERSTATE RULE PROVISIONS

Santa Rosa Energy Center Plant Name (from STEP 1)

#### STEP 3

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

#### Read the standard requirements.

#### 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 98.122 and Rule 82-298.470, F.A.C., in accordance with the deadlines specified in Rule 82-213.420, F.A.C.; and
- osadines 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 shell compty 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, shell 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 allowence 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.

- determined in accordance with 40 CFR Part 98, Subpart HH.

  (2) A CAIR NO<sub>2</sub> unit shall be subject to the requirements under paragraph (1) of the NO<sub>2</sub> Requirements starting on the later of January 1, 2008, or the deadline for meeting the unit is monitor certification requirements under 40 CFR 96.170(b)(1) or (2) and for each control period thereafter.

  (3) A CAIR NO<sub>2</sub> allowance shell in obtained for compliance with the requirements under paragraph (1) of the NO<sub>2</sub> Requirements, for a control period in a calendar year before the year for which the CAIR NO<sub>2</sub> allowance was allocated.

  (4) CAIR NO<sub>2</sub> allowances shell be held in, deducted from, or transferred into or among CAIR NO<sub>2</sub> Allowance Tracking System accounts in accordance with 40 CFR Part 96, Subparts FF and GG.

  (5) A CAIR NO<sub>2</sub> allowance is a limited authorization to errit one ton of NO<sub>2</sub> in accordance with the CAIR NO<sub>2</sub> Annual Tracking Program. No provision of the CAIR NO<sub>2</sub> allowance is a limited authorization to errit or an examption under 40 CFR 96.105 and no provision of lew 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>2</sub> allowance does not constitute a property right.

  (7) Upon recordation by the Administrator under 40 CFR Part 98, Subpart EE, FF, or GG, every allocation, transfer, or deduction of a CAIR NO<sub>2</sub> allowance to or from a CAIR NO<sub>3</sub> unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR. NO<sub>3</sub> united automatically in any CAIR Part of the source that includes the CAIR.
- NO<sub>s</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 shell aumender 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<sub>x</sub> source and each CAIR NO<sub>x</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 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
- 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 as 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 recorditaceping, 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.

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Effective: 3/16/08

#### CLEAN AIR INTERSTATE RULE PROVISIONS

Santa Rosa Energy Center Plant Name (from STEP 1)

#### STEP 3, Continued

#### 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.
- (1) Each Walk No. Source and each Walk No. Willisman meet the requirements of the CAIR NO. Source or the CAIR designated representative of a CAIR NO. Source shall also apply to the owners and operators of such source and of the CAIR NO. 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.

- (1) 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
- (2) 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 SO2 source and each SO2 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 SO2 source with the following CAIR SO2 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 98.254(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 94.96, Subpart HHH.

  (2) A CAIR SO<sub>2</sub> unit shall be subject to the requirements under paragraph (1) of the Sulfur Dioxide Emission Requirements starting on the late of January 1, 2010 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 95.270(b)(1) or (2) and for each
- control period thereafter.
- control period melester.

  (3) A CAIR SO<sub>2</sub> allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the SO<sub>2</sub> Emission Requirements, for a control period in a calendar year before the year for which the CAIR SO<sub>2</sub> 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
- (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 95, Subparts FFF and GGG.
  (5) A CAIR SO<sub>3</sub> allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO<sub>3</sub> Trading Program. No provision of the CAIR SO<sub>3</sub> 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>3</sub> allowance does not constitute a property right.
  (7) Upon recordation by the Administrator under 40 CFR Part 99, Subpart FFF or GGG, every allocation, transfer, or deduction of a CAIR SO<sub>2</sub> allowance to or from a CAIR SO<sub>2</sub> unit's compliance account is incorporated automatically in any CAIR Part of the source that includes the CAIR SO<sub>2</sub> unitered.

#### 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 SO<sub>2</sub> unit at the source shall surrender the CAIR SO<sub>2</sub> allowances required for deduction under 40 CFR 95.254(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.

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Effective: 3/16/08

#### CLEAN AIR INTERSTATE RULE PROVISIONS

Santa Rosa Energy Center Plant Name (from STEP 1)

#### Recordkeeping and Reporting Requirements.

#### STEP 3, Continued

- (1) Unless otherwise provided, the owners and operators of the CAIR SO2 source and each CAIR SO2 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 the source and all occuments that demonstrate the truth of the statements in the certificate or representation; provided that the occurrence 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 95, 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 ell records made or required under the CAIR SO<sub>2</sub> Trading
- (v) 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<sub>2</sub> source and each CAIR SO<sub>2</sub> unit shall meet the requirements of the CAIR SO<sub>2</sub> Trading Program.

  (2) Any provision of the CAIR SO<sub>2</sub> Trading Program that epplies to a CAIR SO<sub>2</sub> source or the CAIR designated repre 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> Triading 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<sub>2</sub> 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<sub>2</sub> source or CAIR SO<sub>2</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 NO<sub>x</sub> 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
  - (i) Submit to the DEP a complete and certified CAIR Part form under 40 CFR 96.322 and Rule 52-296.470, 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> 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 POX Ozone Season unit required to have a Title V operating permit or air construction permit or air construction permit or air construction 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, Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR Part 96, Subpart HHHH, and Rule 52-296.470, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 95, 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, Ozone Season Emission Requirements.

- (1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO<sub>x</sub> Ozone Season source and each CAIR NO<sub>x</sub> Ozone Season unit at the source shall hold, in the source's compliance account, CAIR NO<sub>x</sub> Ozone Season allowances available for compliance deductions for the control period under 40 CFR 96.354(a) in an amount not less than the tors of total NO<sub>x</sub> emissions for the control period from all CAIR NO<sub>x</sub> 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 units at the source, as determined in accordance with 40 CFR Part 96, Subpart PHPH.

  (2) A CAIR NO<sub>X</sub> Ozone Season experience 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<sub>X</sub> Ozone Season allowance shall not be deducted, for compliance with the requirements under paragraph (1) of the NO<sub>X</sub> Ozone Season Emission Requirements, for a control period in a calendar year before the year for which the CAIR NO<sub>X</sub> Ozone Season allowance was allocated.
- 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<sub>X</sub> Ozone Season allowance is a limited authorization to emit one ton of NO<sub>X</sub> in accordance with the CAIR NO<sub>X</sub> Ozone Season Trading Program. No provision of the CAIR NO<sub>X</sub> 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 the property of the cair of the constitute and the constitute appropriate the cair of the cai
- 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.

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#### SECTION V. CAIR PART FORM

#### CLEAN AIR INTERSTATE RULE PROVISIONS

Santa Rosa Energy Center Plant Name (from STEP 1)

#### Excess Emissions Requirements.

#### STEP 3, Continued

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 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 pend 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
- (i) All ensisting or representation under 40 CFR 96.313 for the CAIR designated representative for 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 96.19abpart HHHH, of this part, provided that to the extent that 40 CFR Part 96, Subpart HHHH, provides for a 3-year period for recordiceping, 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

- (III) Copies on air reports, compliance cerinations, and other submission 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 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>x</sub> Ozone Season source and each CAIR NO<sub>x</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.

#### Liability.

- (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 tha CAIR NO<sub>X</sub> Ozone Season Trading Program.

  (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 NO<sub>X</sub> 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 NO<sub>X</sub> Ozone Season source or CAIR NO<sub>X</sub> Ozone Season into from compliance with any other provision of the applicable, approved State Implementation Plan, a federally enforceable permit, or the Clean Air Act.

#### STEP 4

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

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

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 frue, 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.

Jason Goodwin		DirectorEHS;	ADR		Title
Name					
Santa Rosa Energy Center, Owner Name	LLC				Company
(713) 570-4795 Phone	mail Address	jgoodwin@calpin	ie.com		E-
Signature Acre To			Date	5/7/08	
			-		

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#### SECTION VI. APPENDICES

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## SECTION VI. APPENDIX H

## PERMITTING HISTORY

ARMS <sup>1</sup> No.	Description	Permit No.	Issue Date	Expiration Date	Revised Date(s)
		1130168-001-AC (PSD-FL-253)	12/04/98		
		1130168-002-AC	5/25/00	12/31/01	
		1130168-003 <b>-</b> AC	4/01/02	12/31/01	
		1130168-004-AV (Initial Title V Permit)	01/01/2003		
001	Turbine 1130168-005-AV (Revision) 1130168-006-AC 09/07/2005 12/31/20 12/31/20	1130168-005-AV	09/07/2005	12/31/2007	7/1/02
		1130168-006-AC			
		1130168-007 <b>-</b> AV		12/31/2012	
		12/31/2012			
		1130168-009-AC			
		1130168-010-AV			

<sup>&</sup>lt;sup>1</sup> Air Resource Management System

## Appendix P - Permit Summary Tables

## Table 1-1. Summary of Air Pollutant Standards and Terms.

These tables summarize information for convenience purposes only, and do not supersede any of the terms or conditions of this permit.

ARMS! No.	Brief Description	
001	Combined-Cycle Combustion Turbine	Maximum allowable hours of operation for the gas turbine are 8760 hours per year.

		Allowable Emissions		Equivalent Emissions*		
, Pollutant	Fuel	Standard(s)	lbs:/hour	lbs./hour TPY	Regulatory Citation(s)	See permit condition(s)
Visible Emissions	gas	10% Opacity			1130168-001-AC	A.14.
Carbon Monoxide	gas	9 ppmvd	29	127	1130168-001-AC	A.11.
Sulfur Dioxide	gas	2 grains of sulfur/dscf	5	4 127 6	1130168-001-AC	A.13.
Nitrogen Oxides	gas	9 ppmvd	64.1	280.75	1130168-001-AC	A.10.

#### Notes:

<sup>\*</sup>The "Equivalent Emissions" listed are for informational purposes only.

	,	mpliance Require		 	
		Compliance	Testing Time	Productive August 2004 and 1007 S. Mariani Control	I multipliation to the control of th
Pollutant 2	Fuels	Method	Frequency	CMS*	See permit condition(s)
Visible Emissions	gas	EPA Method 9	Annual		A.19.
Carbon Monoxide	gas	EPA Method 10	Annual		A.19.
Sulfur Dioxide	gas	uel sampling and analysi	Daily		A.21.
Nitrogen Oxides	gas	CMS*	Continuous	 Yes	A.20.

\*CMS [=] continuous monitoring system

<sup>&</sup>lt;sup>1</sup> Air Resource Management System

To: Jason Goodwin

Cc: dhill@calpine.com; Heidi Whidden; Oquendo.Ana@epamail.epa.gov;

'Forney Kathleen@epamail.epa.gov'; Bradburn, Rick; Gibson, Victoria; Attalla, Yousry;

Walker, Elizabeth (AIR); Holtom, Jonathan

Subject: SANTA ROSA ENERGY CENTER, LLC - CALPINE OPERATING SERVICES COMPANY,

INC.; 1130168-009-AC (PSD-FL-253B)/1130168-010-AV

Attachments: 1130168SignedWtrittenNoticeofIntentDraftACDraftProposedAV.pdf

## Dear Sir/ Madam:

Attached is the official **Written Notice of Intent to Issue Air Permit** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).

Attention: Yousry Attalla

Owner/Company Name: SANTA ROSA ENERGY CENTER, LLC

Facility Name: SANTA ROSA ENERGY CENTER

Project Number: 1130168-009-AC(PSD-FL-253B)/1130168-010-AV

Permit Status: DRAFT CONSTRUCTION-DRAFT/PROPOSED

Permit Activity: PERMIT REVISION Facility County: SANTA ROSA

Click on the following link to access the permit project documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf permit zip files/1130168.009.AC.D pdf.zip

Click on the following link to access the permit project documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf permit zip files/1130168.010.AV.D pdf.zip

"The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the "Air Permit Documents Search" website at <a href="http://www.dep.state.fl.us/air/emission/apds/default.asp">http://www.dep.state.fl.us/air/emission/apds/default.asp</a>. "

Permit project documents that are addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation.

Barbara Friday Bureau of Air Regulation Division of Air Resource Management (DARM) (850)921-9524

From:

Microsoft Exchange

To:

Jason Goodwin; dhill@calpine.com; 'Heidi Whidden'

Sent:

Monday, August 30, 2010 1:43 PM

Subject:

Relayed: SANTA ROSA ENERGY CENTER, LLC - CALPINE OPERATING SERVICES

COMPANY, INC.; 1130168-009-AC (PSD-FL-253B)/1130168-010-AV

Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:

Jason Goodwin

dhill@calpine.com

'Heidi Whidden'

Subject: SANTA ROSA ENERGY CENTER, LLC - CALPINE OPERATING SERVICES COMPANY, INC.; 1130168-009-AC (PSD-FL-253B)/1130168-010-AV

Sent by Microsoft Exchange Server 2007

From: Jason Goodwin [Jason.Goodwin@calpine.com]

**Sent:** Monday, August 30, 2010 1:47 PM

To: Friday, Barbara

Subject: RE: SANTA ROSA ENERGY CENTER, LLC - CALPINE OPERATING SERVICES

COMPANY, INC.; 1130168-009-AC (PSD-FL-253B)/1130168-010-AV

Received - thanks.

Jason Goodwin Calpine EHS | Southeast Region 713.570.4795 o | 713.252.8064 m jason.goodwin@calpine.com

NYSE: CPN

**From:** Friday, Barbara [mailto:Barbara.Friday@dep.state.fl.us]

Sent: Monday, August 30, 2010 12:43 PM

To: Jason Goodwin

Cc: Dane Hill; Heidi Whidden; Oquendo.Ana@epamail.epa.gov; Forney.Kathleen@epamail.epa.gov; Bradburn, Rick;

Gibson, Victoria; Attalla, Yousry; Walker, Elizabeth (AIR); Holtom, Jonathan

Subject: SANTA ROSA ENERGY CENTER, LLC - CALPINE OPERATING SERVICES COMPANY, INC.; 1130168-009-AC (PSD-

FL-253B)/1130168-010-AV

#### Dear Sir/ Madam:

Attached is the official Written Notice of Intent to Issue Air Permit for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).

Attention: Yousry Attalla

Owner/Company Name: SANTA ROSA ENERGY CENTER, LLC

Facility Name: SANTA ROSA ENERGY CENTER

Project Number: 1130168-009-AC(PSD-FL-253B)/1130168-010-AV

Permit Status: DRAFT CONSTRUCTION-DRAFT/PROPOSED

Permit Activity: PERMIT REVISION Facility County: SANTA ROSA

Click on the following link to access the permit project documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf permit zip files/1130168.009.AC.D pdf.zip

Click on the following link to access the permit project documents:

http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf permit zip files/1130168.010.AV.D pdf.zip

"The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the

engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the "Air Permit Documents Search" website at http://www.dep.state.fl.us/air/emission/apds/default.asp . "

Permit project documents that are addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Bureau of Air Regulation.

Barbara Friday Bureau of Air Regulation Division of Air Resource Management (DARM) (850)921-9524

The Department of Environmental Protection values your feedback as a customer. DEP Secretary Michael W. Sole is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on <a href="https://doi.org/10.1016/jhis.com/his.link.to">https://doi.org/10.1016/jhis.com/his.link.to</a> the DEP Customer Survey. Thank you in advance for completing the survey.

From: Sent:

Dane Hill [Dane.Hill@calpine.com] Monday, August 30, 2010 3:32 PM

Subject:

Read: SANTA ROSA ENERGY CENTER, LLC - CALPINE OPERATING SERVICES

COMPANY, INC.; 1130168-009-AC (PSD-FL-253B)/1130168-010-AV

Your message was read on Monday, August 30, 2010 3:32:19 PM (GMT-05:00) Eastern Time (US & Canada).

From: Mail Delivery System [MAILER-DAEMON@mseive02.rtp.epa.gov]

To: Forney.Kathleen@epamail.epa.gov; Oquendo.Ana@epamail.epa.gov

**Sent:** Monday, August 30, 2010 1:45 PM

Subject: Relayed: SANTA ROSA ENERGY CENTER, LLC - CALPINE OPERATING SERVICES

COMPANY, INC.; 1130168-009-AC (PSD-FL-253B)/1130168-010-AV

# Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:

Forney.Kathleen@epamail.epa.gov

Oquendo.Ana@epamail.epa.gov

Subject: SANTA ROSA ENERGY CENTER, LLC - CALPINE OPERATING SERVICES COMPANY, INC.; 1130168-009-AC (PSD-FL-253B)/1130168-010-AV

From:

Microsoft Exchange

To:

Holtom, Jonathan; Bradburn, Rick; Gibson, Victoria

Sent:

Monday, August 30, 2010 1:43 PM

Subject:

Delivered: SANTA ROSA ENERGY CENTER, LLC - CALPINE OPERATING SERVICES

COMPANY, INC.; 1130168-009-AC (PSD-FL-253B)/1130168-010-AV

## Your message has been delivered to the following recipients:

Holtom, Jonathan

Bradburn, Rick

Gibson, Victoria

Subject: SANTA ROSA ENERGY CENTER, LLC - CALPINE OPERATING SERVICES COMPANY, INC.; 1130168-009-AC (PSD-FL-253B)/1130168-010-AV

Sent by Microsoft Exchange Server 2007

From: Holtom, Jonathan Friday, Barbara To:

Monday, August 30, 2010 2:21 PM Sent:

Read: SANTA ROSA ENERGY CENTER, LLC - CALPINE OPERATING SERVICES COMPANY, INC.; 1130168-009-AC (PSD-FL-253B)/1130168-010-AV Subject:

Your message was read on Monday, August 30, 2010 2:20:45 PM (GMT-05:00) Eastern Time (US & Canada).

From: To: Bradburn, Rick Friday, Barbara

Sent:

Monday, August 30, 2010 2:01 PM

Subject:

Read: SANTA ROSA ENERGY CENTER, LLC - CALPINE OPERATING SERVICES

COMPANY, INC.; 1130168-009-AC (PSD-FL-253B)/1130168-010-AV

Your message was read on Monday, August 30, 2010 2:01:11 PM (GMT-05:00) Eastern Time (US & Canada).

From: To: Gibson, Victoria Friday, Barbara

Sent:

Monday, August 30, 2010 1:45 PM

Subject:

Read: SANTA ROSA ENERGY CENTER, LLC - CALPINE OPERATING SERVICES

COMPANY, INC.; 1130168-009-AC (PSD-FL-253B)/1130168-010-AV

Your message was read on Monday, August 30, 2010 1:44:41 PM (GMT-05:00) Eastern Time (US & Canada).

From:

Microsoft Exchange

To: Sent: Attalia, Yousry; Walker, Elizabeth (AIR) Monday, August 30, 2010 1:43 PM

Subject:

Delivered: SANTA ROSA ENERGY CENTER, LLC - CALPINE OPERATING SERVICES

COMPANY, INC.; 1130168-009-AC (PSD-FL-253B)/1130168-010-AV

## Your message has been delivered to the following recipients:

Attalla, Yousry

Walker, Elizabeth (AIR)

Subject: SANTA ROSA ENERGY CENTER, LLC - CALPINE OPERATING SERVICES COMPANY, INC.; 1130168-009-AC (PSD-FL-253B)/1130168-010-AV

Sent by Microsoft Exchange Server 2007

Attalla, Yousry Friday, Barbara From: To:

Sent:

Monday, August 30, 2010 2:47 PM
Read: SANTA ROSA ENERGY CENTER, LLC - CALPINE OPERATING SERVICES Subject:

COMPANY, INC.; 1130168-009-AC (PSD-FL-253B)/1130168-010-AV

Your message was read on Monday, August 30, 2010 2:46:55 PM (GMT-05:00) Eastern Time (US & Canada).