#### **MEMORANDUM**

TO:

Howard L. Rhodes

FROM:

A. A. Linero, P.E.

DATE:

October 29, 2002

SUBJECT:

FINAL Title V Air Operation Permit

No. 1130168-004-AV Santa Rosa Energy, LLC Santa Rosa Energy Center

This is an initial Title V Air Operation Permit for the subject facility.

This is a new 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 (MW) General Electric (Frame 7F design) combined-cycle combustion turbine-electrical generator with a Heat Recovery Steam Generator (HRSG), one 200-foot exhaust stack, an unregulated wet cooling tower, and a small natural gas preheater (dew point heater). The combustion turbine unit is equipped with a Dry Low NO<sub>X</sub> (DLN) combustor. A Continuous Emissions Monitor (CEM) monitors NO<sub>X</sub> for the combustion turbine.

Comments were received on the DRAFT Permit, but the DRAFT Permit was not reissued. The comments were not considered significant enough to reissue the DRAFT Permit and require another Public Notice. The only comments received were from the applicant, and all issues were resolved. No comments were received from U.S. EPA, Region 4, regarding the PROPOSED Permit.

I recommend your signature.

Attachment

AAL/tbc



# Department of Environmental Protection

Jeb Bush Governor Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32399-2400

David B. Struhs Secretary

### **NOTICE OF FINAL PERMIT**

In the Matter of an Application for Permit by:

Mr. Robert K. Alff Senior Vice President Santa Rosa Energy, LLC 2701 N. Rocky Point Drive Suite 1200 Tampa, FL 33607 FINAL Permit No. 1130168-004-AV Santa Rosa Energy Center

Enclosed is FINAL Title V Permit Number 1130168-004-AV for the operation of the Santa Rosa Energy Center, located southwest of Sterling Fibers, Inc., within the plant boundary at 5001 Sterling Way, Pace, Santa Rosa County, issued pursuant to Chapter 403, Florida Statutes (F.S.).

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; 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 of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the permitting authority.

Executed in Tallahassee, Florida.

A. A. Linero, P.E.

Bureau of Air Regulation

FINAL Permit No. 1130168-004-AV Santa Rosa Energy Center Page 2 of 3

### **CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 10 10 to the person(s) listed or as otherwise noted:

Robert K. Alff\*
Benjamin M. Borsch, P.E., Calpine Eastern Corporation
U.S. EPA, Region 4 (INTERNET E-mail Memorandum)
Sandra Veazey, Northwest District Office

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 adknowledged.

| U.S. Postal Service CERTIFIED MAIL (Domestic Mail Only; No Ins  Article Sent To: Mr. Robert K. Alff   | surance Coverage Provided)   |                 |
|---|--|-----------------|
| Postage \$ Certified Fee Gendorsement Required) Restricted Delivery Fee (Endorsement Required) Total Postage & Fees \$  | Postmark<br>Here   |                 |
| Name (Please Print Clearly) (to be complete Mr. Robert K. Alff Street, Apt. No.; or PO Box No. 2701 N. Rocky Point Tampa, Florida 336  PS Form 3800. July 1999  Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.  Princy your name and address on the reverse so that we can return the card to you.  Attach this card to the back of the mailpiece, or on the front if space permits. | Drive, Suite 1200  507  See Reverse for Instructions  A. Received by (Please Print Clearly)  C. Signature  X. Margh.   | Agent Addressee |
| 1. Article Addressed to: Mr. Robert K. Alff Senior Vice President Santa Rosa Energy, LLC 2701 N. Rocky Point Drive Suite 1200 Tampa, Florida 33607  | D. Is delivery address different from item 1?  If YES, enter delivery address below:  3. Service Type  XIXI Certified Mail   | Yes No          |
|   | 4. Restricted Delivery? (Extra Fee)  | ☐ Yes           |
| 2. Article Number (Copy from service label) 7000 0600 0021 6524 2731  | and the second s |                 |
| PS Form 3811 July 1999 Domestic 3c  | turn Heceip :6.  | 2795-/N-M-0952  |

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2.7

FINAL Permit No. 1130168-004-AV Santa Rosa Energy Center Page 3 of 3

### FINAL PERMIT DETERMINATION

#### I. Comment(s).

No comments were received from U.S. EPA, Region 4, concerning the PROPOSED Title V Permit that was posted on the Department's web site on September 4, 2002.

#### II. Conclusion.

The permitting authority hereby issues the FINAL Title V Permit, with one minor change for Statewide consistency, due to a permit format modification, as noted below:

• The Department has recently revised the format for Title V permits that has eliminated Subsection D. Miscellaneous of Section I. Facility Information.

This Subsection in the DRAFT permit contained the following statement:

The use of 'Permitting Notes' throughout this permit are for informational purposes <u>only</u> and are not permit conditions.

## **STATEMENT OF BASIS**

Santa Rosa Energy, LLC Santa Rosa Energy Center Facility ID No.: 1130168 Santa Rosa County

Initial Title V Air Operation Permit FINAL Permit No.: 1130168-004-AV

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.

This is a new 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 (MW) General Electric (Frame 7F design) combined-cycle combustion turbine-electrical generator with a Heat Recovery Steam Generator (HRSG), one 200-foot exhaust stack, an unregulated wet cooling tower, and a small natural gas preheater (dew point heater). The combustion turbine unit is equipped with a Dry Low NO<sub>X</sub> (DLN) combustor. A Continuous Emissions Monitor (CEM) monitors NO<sub>X</sub> for the combustion turbine.

Compliance Assurance Monitoring (CAM) does not apply to these emissions units.

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

Based on the initial Title V permit application received April 1, 2002, this facility is *not* a major source of hazardous air pollutants (HAPs). The facility holds ORIS code 55242 under the Federal Acid Rain Program.

Santa Rosa Energy, LLC
Santa Rosa Energy Center
Facility ID No. 1130168
Santa Rosa County

Initial Title V Air Operation Permit FINAL Permit No. 1130168-004-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: 850/922-6979

Compliance Authority:
Department of Environmental Protection
Northwest District

160 Governmental Center Pensacola, Florida 32501-5794

Telephone: 850/595-8300 Fax: 813/595-4417

# Initial Title V Air Operation Permit FINAL Permit No. 1130168-004-AV

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# Department of Environmental Protection

Jeb Bush Governor Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32399-2400

David B. Struhs Secretary

Permittee: Santa Rosa Energy, LLC FINAL Permit No. 1130168-004-AV Facility ID No. 1130168 SIC Nos.: 49, 4911

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

This permit is for the operation of the Santa Rosa Energy Center. This facility is located southwest of Sterling Fibers, Inc., within the plant boundary at 5001 Sterling Way, Pace, Santa Rosa County; UTM Coordinates: Zone 16, 488.974 km East and 3381.526 km North; and, Latitude: 30° 33' 58.3" North, and Longitude: 87° 06' 54.1" West.

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.

### Referenced attachments made a part of this permit:

Appendix I-1, List of Insignificant Emissions Units and/or Activities
Appendix U-1, List of Unregulated Emissions Units and/or Activities
Appendix TV-4, Title V Conditions, version dated 02/12/02
Appendix SS-1, STACK SAMPLING FACILITIES, version dated 10/07/96
TABLE 297.310-1, CALIBRATION SCHEDULE, version dated 10/07/96
FIGURE 1 - SUMMARY REPORT-GASEOUS AND OPACITY EXCESS
EMISSION AND MONITORING SYSTEM PERFORMANCE REPORT, version dated 07/96
Appendix CP-1, Compliance Plan dated April 1, 2002
Acid Rain Phase II Part Application signed by the Designated Representative on January 14, 2000.

Effective Date: January 1, 2003

Renewal Application Due Date: July 1, 2007

Expiration Date: December 31, 2007

Department of Environmental Protection

Howard L. Rhodes, Director Division of Air Resource

Management

HLR/tbc

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#### Section I. Facility Information.

#### Subsection A. Facility Description.

This is a new 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 (MW) General Electric (Frame 7F design), combined-cycle, combustion turbine-electrical generator with a Heat Recovery Steam Generator (HRSG), one 200-foot exhaust stack, an unregulated wet cooling tower, and a small natural gas preheater (dew point heater). The combustion turbine unit is equipped with a Dry Low NO<sub>X</sub> (DLN) combustor. 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 PM/PM<sub>10</sub> emissions.

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

Based on the initial Title V permit application received April 1, 2002, this facility is *not* a major source of hazardous air pollutants (HAPs).

### Subsection B. Summary of Emissions Unit ID Nos. and Brief Descriptions.

| E.U. ID No. | Brief Description   |  |  |  |  |
|-------------|---|--|--|--|--|
| -001        | One nominal 167 Megawatt Gas Combined-Cycle Combustion Turbine- |  |  |  |  |
|             | Electrical Generator with Heat Recovery Steam Generator (HRSG). |  |  |  |  |

#### Unregulated Emissions Units and/or Activities

| -003 | Wet Cooling Tower. | ٦ |
|------|--------------------|---|
| -003 | Wet Cooling Tower. |   |

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

#### Subsection C. Relevant Documents.

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.

#### These documents are provided to the permittee for information purposes only:

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

Table 2-1, Summary of Compliance Requirements.

Appendix A-1: Abbreviations, Acronyms, Citations, and Identification Numbers.

Appendix H-1: Permit History/ID Number Changes.

Statement of Basis.

#### These documents are on file with permitting authority:

Initial Title V Permit Application received April 1, 2002.

Letters from the applicant received July 26, 2002, and August 19, 2002, offering comments on the DRAFT Title V Permit. The first letter includes the approved Custom Fuel Monitoring Plan.

### Section II. Facility-wide Conditions.

#### The following conditions apply facility-wide:

- 1. Appendix TV-4, Title V Conditions, is a part of this permit. {Permitting note: Appendix TV-4, Title V Conditions, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided one copy when requested or otherwise appropriate.}
- 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 that designated as Number 1 on the Ringelmann Chart (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 3346 Merrifield, VA 22116-3346 Telephone: 703/816-4434

and,

- 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. <u>Unregulated Emissions Units and/or Activities.</u> Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit. [Rule 62-213.440(1), F.A.C.]
- 6. <u>Insignificant Emissions Units and/or Activities.</u> Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit. [Rules 62-213.440(1), 62-213.430(6), and 62-4.040(1)(b), F.A.C.]

- Compliance Plan. Based on the application, (an) emissions unit(s) (was/were) not in compliance. Appendix CP-1, Compliance Plan, is a part of this permit. [Rule 62-213.440(2), F.A.C.]
- Not federally enforceable. General Pollutant Emission Limiting Standards. Volatile 8. 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, 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)(a), F.A.C.]

Not federally enforceable. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include all necessary actions to prevent fugitive dust. [Rule 62-296.320(4)(c)2., F.A.C.; and proposed by applicant in the initial Title V permit application received April 1, 2002]

{Note: This condition implements the requirements of Rules 62-296.320(4)(c)1., 3., & 4., F.A.C. (see Condition 57. of Appendix TV-4, Title V Conditions.)}

- When appropriate, any recording, monitoring, or reporting requirements that are timespecific shall be in accordance with the effective date of the permit, which defines day one. [Rule 62-213.440, F.A.C.]
- 11. 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.]
- The permittee shall submit all compliance related notifications and reports required of 12. 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: 850/595-4417

[1130168-001-AC, Specific Condition 7.]

13. 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

14. <u>Certification by Responsible Official (RO)</u>. 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.]

#### Section III. Emissions Unit(s) and Conditions.

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

| E.U. ID No. | Brief Description   |
|-------------|---|
| -001        | One nominal 167 Megawatt Gas Combined-Cycle Combustion Turbine- |
|             | Electrical 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 Monitor (CEM) monitors NO<sub>X</sub> for 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.

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

#### General

- A.1. Definitions. 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.2.** 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.3. <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.4.** 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

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

# FINAL Permit No. 1130168-004-AV Facility ID No. 1130168

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 provided to the Department of Environmental Protection (DEP) within 45 days of completing the initial compliance testing.

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

- A.5. <u>Methods of Operation -- Fuel.</u> 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.6.** 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.7. 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.9. and A.10. [Rules 62-4.070 and 62-212.400, F.A.C.; and 1130168-001-AC, Specific Condition 16.]
- **A.8.** 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.]

#### **Emission Limitations and Standards**

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

{Permitting note: Unless otherwise specified, the averaging times for Specific Conditions A.9. through A.14. are based on the specified averaging time of the applicable test method.}

**A.9.** The following table is a summary of the BACT determination, and is followed by the applicable specific conditions. Values for  $NO_X$  are corrected to 15%  $O_2$ . 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.

| Operational<br>Mode   | NOx<br>(ppmvd) | CO<br>(ppmvd)   | VE (% opacity) | SO <sub>2</sub> (gr S<br>per 100 scf) | Comments                |
|-----------------------|----------------|-----------------|----------------|---------------------------------------|-------------------------|
| Combustion turbine on | 9<br>(24-hr)   | 9<br>(29 lb/hr) | 10             | 2 (fuel)                              | Pipeline<br>Natural Gas |
| DLN                   |                |                 |                |                                       | Good<br>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.10. Nitrogen Oxides (NO<sub>X</sub>) Emissions.
  - The concentration of  $NO_X$  in the stack exhaust gas with the combustion turbine operating shall not exceed 9 ppmvd at 15%  $O_2$  (24-hour block average).
  - 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.

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

**A.11.** 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.12. [Reserved.]

**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 PM/PM<sub>10</sub> 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

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

## FINAL Permit No. 1130168-004-AV Facility ID No. 1130168

be minimized. Excess emissions occurrences shall in no case exceed two hours in any 24-hour period except during either "cold start-up" to, or shutdowns from, cogeneration plant operation. During cold start-up to combined cycle operation, up to four hours of excess emissions are allowed. During shutdowns from combined-cycle operation, up to three hours of excess emissions are allowed. Cold start-up is defined as a startup to combined-cycle operation following 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.]

**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  $NO_X$ .

[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. 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.9. and A.10.
[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: Table 2-1, Summary of Compliance Requirements, 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. 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.
  - 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.]

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

# FINAL Permit No. 1130168-004-AV Facility ID No. 1130168

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 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 unless prohibited by Rule 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.]

- 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. [Reserved.]

A.24. 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 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.25. 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.26.** Calculation of Emission Rate. 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.27. 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, the minimum sample volume per run shall be 25 dry standard cubic feet.

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- (c) <u>Required Flow Rate Range</u>. 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

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

(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.28.** 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.29.1. The permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit. [Rule 62-297.310(6), F.A.C.]
- **A.29.2.** The permittee shall design the emission units to accommodate adequate testing and sampling locations for compliance with the applicable emission limits listed in Specific Conditions **A.9.** through **A.11.**

[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 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) <u>Special Compliance Tests</u>. 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) <u>Waiver of Compliance Test Requirements</u>. 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**

#### **Continuous Monitoring Requirements**

**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  $NO_X$  emissions (ppmvd @ 15% oxygen) are above the BACT standards, listed in Specific Conditions **A.9.** and **A.10.**, 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 1130168-001-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 (1997 version). 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.]

- A.33. Continuous Monitoring System Reports. The monitoring devices shall comply with the certification 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. 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.]
- **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 February 7, 2000. 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 test(s). [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** (5) years following the date on which

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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.]

#### A40. 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.
  - 17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.

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- 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.

Santa Rosa Energy Center

**ORIS code: 55242** 

The emissions unit listed below is regulated under Phase II of the Federal Acid Rain Program.

| E.U.<br>ID No. | Description  |
|----------------|--|
| -001           | One nominal 167 Megawatt Gas Combined-Cycle Combustion Turbine-Electrical Generator. |

- 1. The Acid Rain Part 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 application listed below:
- a. DEP Form No. 62-210.900(1)(a), version 07/01/95, signed by the Designated Representative on January 14, 2000, and deemed complete by the Department on February 7, 2000

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

2. Sulfur dioxide (SO<sub>2</sub>) allowance allocations for the Acid Rain unit are:

| E.U.<br>ID No. | EPA<br>ID# | Year   | 2003 | 2004 | 2005 | 2006 | 2007 |
|----------------|------------|--|------|------|------|------|------|
| -001           | COG<br>01  | 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.]
- 4. 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.]

## Appendix H-1. Permit History/ID Number Changes.

### Permit History (for tracking purposes):

| E.U.<br>ID      | Description               | Permit No.     | Issue                | Expiration           | Revised |
|-----------------|---------------------------|----------------|----------------------|----------------------|---------|
| <b>No.</b> -001 | Combined-Cycle Combustion | 1130168-001-AC | <b>Date</b> 12/04/98 | <b>Date</b> 12/31/01 | 7/1/02  |
|                 | Turbine                   | (PSD-FL-253)   |                      |                      |         |
|                 |                           | 1130168-002-AC | 5/25/00              |                      |         |
|                 |                           | 1130168-003-AC | 4/01/02              |                      |         |

### Appendix I-1. List of Insignificant Emissions Units and/or Activities.

Santa Rosa Energy, LLC
Santa Rosa Energy Center

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The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, or that meet the criteria specified in Rule 62-210.300(3)(b)1., F.A.C., Generic Emissions Unit Exemption, are exempt from the permitting requirements of Chapters 62-210, 62-212 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

#### Brief Description of Emissions Units and/or Activities:

- 1. Operation of a 2.6 mmBtu/hr fuel gas heater.
- 2. Operation of lubricating and hydraulic oil container vents.
- 3. Operation of vacuum pumps for sample collection.
- 4. Operation of parts cleaners using non-hazardous solvents.
- 5. Storage of water treatment chemicals.
- 6. Water treatment tasks (e.g., reverse osmosis, demineralization, pH control, addition of anti-corrosion and anti-scaling agents, and oil-water separation).
- 7. Maintenance of grounds and lawns.

{Note: Emissions units or activities which are added to a Title V source after issuance of this permit shall be incorporated into the permit at its next renewal, provided such emissions units or activities have been exempted from the requirement to obtain an air construction permit, and also qualify for exemption from permitting pursuant to Rule 62-213, F.A.C. [Rule 62-213.430(6)(a)]}

### Appendix U-1. List of Unregulated Emissions Units and/or Activities.

Santa Rosa Energy, LLC
Santa Rosa Energy Center

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<u>Unregulated Emissions Units and/or Activities</u>. An emissions unit which emits no "emissions-limited pollutant" and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

The below listed emissions units and/or activities are neither 'regulated emissions units' nor 'insignificant emissions units'.

| E.U. ID<br>No. | Brief Description of Emissions Units and/or Activity |  |
|----------------|--|--|
| 140.           |  |  |
| -003           | Wet Cooling Tower.                                   |  |

| Santa Rosa Er            | iergy, L     | LC                           |                 | Permit No.: 11           |                               |                         |  |
|--------------------------|--------------|------------------------------|-----------------|--------------------------|-------------------------------|-------------------------|--|
| Santa Rosa Energy Center |              |                              |                 | Facility ID No.: 1130168 |                               |                         |  |
| hese tables summar       | ize informat | tion for convenience purpose | es only, and do | not supersede any of th  | e terms or conditions of this | s permit.               |  |
| E.U. ID Nos.             | · .          | Brief Description            | 1               |                          |                               |                         |  |
| -001                     | Combined     | -Cycle Combustion Turbine    | Maximum allo    | wable hours of operatio  | n for the gas turbine are 876 | 60 hours per year.      |  |
|                          |              |                              | w/#1            |                          |                               |                         |  |
|                          |              | Allowable Emiss              | sions           | Equivalent Emissio       | กราง                          |                         |  |
| Pollutant                | Fuel         | Standard(s)                  | bs./hour        | √ lbs./hour 👯 📆Ti        | Regulatory Citation(          | s) See permit condition |  |
| Visible Emissions        | gas          | 10% Opacity                  |                 |                          | 1130168-001-AC                | A.14,                   |  |
| Carbon Monoxide          | gas          | 9 ppmvd                      | 29              |                          | 1130168-001-AC                | A.11.                   |  |
| Sulfur Dioxide           | gas          | 2 grains of sulfur/dscf      | 5               | 1212                     | 1130168-001-AC                | A.13.                   |  |
| Nitrogen Oxides          | gas          | 9 ppmvd                      | 64.1            | 2 280                    | 1130168-001-AC                | A.10.                   |  |

|                   | ि । <del>११</del><br>से ५- १ | Compliance                 | Testing<br>Time               |                       |                 |      |                        |
|-------------------|------------------------------|----------------------------|-------------------------------|-----------------------|-----------------|------|------------------------|
| Pollutant         | Fuels                        | Method                     | <ul> <li>Frequency</li> </ul> | ुर्दा के राजिस क्रिके | Contract of     | 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                          | Fuel sampling and analysis | Daily                         |                       |                 |      | A.21.                  |
| Nitrogen Oxides   | gas                          | CMS*                       | Continuous                    |                       | <del>   ·</del> | Yes  | A.20.                  |

### Appendix CP-1. Compliance Plan.

Santa Rosa Energy, LLC
Santa Rosa Energy Center

FINAL Permit No. 1130168-004-AV Facility ID No. 1130168

- In accordance with air construction permit 1130168-001-AC (PSD-FL-253), compliance and CEMS certification testing shall be completed prior to June 30, 2002. Construction shall be completed and compliance testing shall be initiated by July 1, 2002 (this corresponds to the extended expiration date of air construction permit 1130168-001-AC). Authority to construct shall not be extended beyond this expiration date without further authorization.
- Compliance with the allowable emission limiting standards shall be determined within 60 days after achieving the maximum production rate, but not later than 180 days of initial operation of the units, and annually thereafter as indicated in air construction permit 1130168-001-AC.

### [1130168-001-AC, Specific Condition 30.]

- The permittee shall submit a properly signed certification document from the permittee's Professional Engineer stating that:
  - 1. The construction of the emissions units was completed in accordance with air construction permit 1130168-001-AC, and
  - 2. The emissions units have been tested, and compliance with the terms and conditions of air construction permit 1130168-001-AC has been properly demonstrated within 45 days after completion of all of the initial performance tests.

[Rules 62-212.400(7)(b), 62-213.440(2), and 62-213.420(1)(a)5., F.A.C.; 1130168-001-AC, Specific Condition 39; and Title V Permit Application received April 1, 2002]

## **BEST AVAILABLE COPY**

# Phase II Permit Application

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

☐ Revised

This submission is: New 🖾

Santa Rosa Energy Center FL 55242
Plant Name State ORIS Code

đ

New Units

STEP 2 Enter the boiler ID# from NADB for each affected unit and Indicate whether a repowering plan is being submitted for the unit by entering "yes" or "no" at column c. For new units, enter the requested information in columns d and e.

identify the source by

plant name, State, and ORIS code from NADB

STEP 1

Compliance
Plan

Boiler ID#

Unit will Repowering
hold allowances Plan
in accordance
with 40 CFR
72.9(c)(1)

Monitor
Commence Certification

Fileso B Follow To byo

New Units

|       | <u></u> | <u> </u> | Operation Date | Deadline   |
|-------|---------|----------|----------------|------------|
| COG01 | Yes     |          | 1 Sept 2001    | 1 Jan 2002 |
|       | Yes     |          |                |            |
|       | Yes     |          |                |            |
|       | Yes     | 11.      |                |            |
|       | Yes     |          | .:             |            |
|       | Yes     |          |                |            |
|       | Yes     |          |                |            |
|       | Yes     |          |                | :          |
|       | Yes     |          |                |            |

STEP 3 Check the box if the response in column c of Step 2 is "Yes for any unit

For each unit that will be repowered, the Repowering Extension Plan form is included and the Repowering Technology Petition form has been submitted or will be submitted by June 1, 1997.

DEP Form No. 82-210,900(1)(a) - Form

Effective: 7-1-95

#### Santa Rosa Energy Center

#### STEP 4 Read the standard requirements and certification, enter the name of the designated representative, and sign

and date

#### Standard Requirements

#### Permit Requirements.

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

#### Monitoring Requirements.

- (1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75, and Rule 62-214.420, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction
- requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.

  (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

#### Sulfur Dioxide Requirements.

- (1) The owners and operators of each source and each Acid Rain unit at the source shall:
- (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
  (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
  (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide
- shall constitute a separate violation of the Act.
- (3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
  - (i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
- (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).

  (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1)(i) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

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

#### Excess Emissions Requirements.

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

#### Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
  - (i) The certificate of representation for the designated representative for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;

  - (ii) All emissions monitoring information, in accordance with 40 CFR part 75; (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

#### Recordkeeping and Reporting Requirements (cont.)

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

#### Liability.

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain part application, an Acid Rain part, or a written exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
  (2) Any person who knowingly makes a false, material statement in any record, submission, or report
- under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program. (5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision
- applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.

  (6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not
- owners or operators or the designated representative.
  (7) Each violation of a provision of 40 CFR parts 72, 73, 75, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities. No provision of the Acid Rain Program, an Acid Rain part application, an Acid Rain part, or a written exemption under 40 CFR 72.7 or 72.8 shall be construed as:

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

#### Certification

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

| David Plauck |           |
|--------------|-----------|
| DI CALL      | 1/14/2000 |
|              |           |
|              |           |
|              |           |

STEP 5 (optional) Enter the source AIRS and FINDS identification numbers, if known

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