

Jeb Bush Governor

Department of Environmental Protection

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

David B. Struhs Secretary

PROPOSED Permit Electronic Posting Courtesy Notification

Florida Power Corporation Intercession City Facility Facility ID No.: 0970014 Osceola County

Title V Air Operation Permit Revision PROPOSED Permit No.: 0970014-004-AV

The electronic version of the PROPOSED permit was posted on the Division of Air Resources Management's world wide web size for the United States Environmental Protection Agency (USEPA) Region 4 office's review on April 19, 2000.

USEPA's review period ends on the 45th day after the permit posting date. Day 45 is June 2, 2000. If an objection (veto) is received from USEPA, the permitting authority will provide a copy of the objection to the applicant.

Provided an objection is not received from USEPA, the PROPOSED permit will become a FINAL permit by operation of law on the 55th day after the permit posting date. Day 55 is June 12, 2000.

The web site address is http://www2.dep.state_fl.us/air.



Department of Environmental Protection

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

David B. Struhs Secretary

April 11, 2000

W. Jeffrey Pardue, C.E.P. Manager, Air Programs Fiorida Power Corporation P.O. Box 14042, MAC BB1A St. Petersburg, Florida 33733-4042

Re: PROPOSED Title V Operation Permit Revision No.: 0970014-004-AV Intercession City Facility

Dear Mr. Pardue:

One copy of the "PROPOSED PERMIT DETERMINATION" for the Intercession City Facility located at 6525 Osceola Polk County Line Road, Intercession City, Osceola County, is enclosed. This letter is only a courtesy to inform you that the DRAFT air operation permit revision has become a PROPOSED permit.

An electronic version of this determination has been posted on the Division of Air Resources Management's world wide web site for the United States Environmental Protection Agency (USEPA) Region 4 office's review. The web site address is http://www2.dep.state.fl.us/air.

Pursuant to Section 403.0872(6), Florida Statutes, if no objection to the PROPOSED permit is made by the USEPA within 45 days, the PROPOSED permit will become a FINAL permit no later than 55 days after the date on which the PROPOSED permit was mailed (posted) to USEPA. If USEPA has an objection to the PROPOSED permit, the FINAL permit will not be issued until the permitting authority receives written notice that the objection is resolved or withdrawn.

If you should have any questions, please contact Jonathan Holtom, P.E. at 850/921-9531.

Sincerely.

C. H. Fancy, P.

Chief

Bureau of Air Regulation

CHF/h Enclosures

copy furnished to:

Mr. J. Michael Kennedy, Q.E.P., Florida Power Corporation (E-mail Memorandum) Jennifer L. Tillman, P.E., Florida Power Corporation (E-mail Memorandum) Mr. Len Kozlov, DEP, Central District (E-mail Memorandum) USEPA, Region 4 (INTERNET E-mail Memorandum)

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0970014-004-AV

I. Public Notice.

An "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION" to Florida Power Corporation for the Intercession City Facility located at 6525 Osceola Polk County Line Road, Intercession City, Osceola County, was clerked on February 11, 2000. The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION" was published in the Osceola News-Gazette on February 24, 2000. The DRAFT Title V Air Operation Permit Revision was available for public inspection at the Central District office in Orlando and the permitting authority's office in Tallahassee. Proof of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" was received on March 16, 2000.

II. Public Comment(s).

No public comments were received during the 30 (thirty)-day public comment period.

III. Conclusion.

The DRAFT Title V Air Operation Permit Revision was converted to the enclosed PROPOSED Title V Air Operation permit without any changes.

The permitting authority will issue the PROPOSED Title V Air Operation Permit No.: 0970014-004-AV.

STATEMENT OF BASIS

PROPOSED Title V Air Operation Permit Revision No.: 0970041-004-AV
Florida Power Corporation
Intercession City Facility
Osceola County

This facility was issued an initial Final Title V Air Operation Permit (Permit No. 0970014-001-AV) on December 31, 1997. The Department issued Air Construction (AC) Permit No. 0970014-002-AC on May 17, 1999, to allow the installation of inlet foggers on the four 96.3 MW (General Electric Model GE PG7111(EA)) simple cycle combustion turbine-electrical generators (Emissions units 007 through 010). The inlet foggers reduce the turbine inlet air temperature, which improves the heat rate and increases power due to the cooler/denser inlet air, and are allowed to operate up to 7,000 hours per year, collectively.

This Title V Air Operation Permit Revision incorporates the new inlet fogger conditions from Permit No. 0970014-002-AC into the Title V Air Operation Permit; changes the continuous monitoring method for nitrogen oxides (NO_X) to continuous emissions monitors (CEMs) from the current water-to-fuel ratio monitoring; and, allows the use of data obtained during the annual Relative Accuracy Test Audit (RATA) in lieu of performing an additional Method 20 NO_X stack test. In addition, other miscellaneous administrative changes, as described below, will be made during this permitting action.

This revision 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 revision.

This facility consists of eleven simple cycle combustion turbines (CT), 6 are pre-NSPS and 5 are NSPS Subpart GG sources. The six pre-NSPS turbines fire new No. 2 fuel oil having a maximum sulfur content of 0.5 percent, by weight. Each turbine has a maximum heat input of 708 MMBtu/hour and power a generator rated at 56.7 MW (megawatts of electricity). Emissions are not controlled and each turbine exhausts through a separate stack. These units are not subject to any federal requirements, NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines or Acid Rain. The above units began commercial service in 1974. The emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required. CT's 7 through 10 are GE PG7111(EA) units and CT 11 is a Siemens V84.3 unit with generator ratings of 92.9 megawatts/CT and 171 megawatts/CT, respectively. The GE CT's and the Siemens CT have a maximum heat input rating at 59° Fahrenheit (F) of 1048 and 1477 MMBtu/hour, respectively. NO_X and SO₂ emissions are controlled with water injection and burning new No. 2 low sulfur fuel oil, respectively. The combustion turbines exhaust through individual stacks. The GE units began commercial service in 1993 and the Siemens unit began commercial service in 1994. CT's 7, through 10 are regulated under Acid Rain, Phase II. CT's 7 through 11 are regulated under NSPS - 40 CFR 60, Subpart GG (Standards of Performance for Stationary Gas Turbines), which is adopted and incorporated by reference in Rule 62-204.800(7)(b), F.A.C. and a BACT determination, dated August 17, 1992.

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

PROPOSED Title V Air Operation Permit Revision No.: 0970041-004-AV
Page 2 of 5

Proposed revisions to the Initial Final Title V Permit No. 0970014-001-AV for the Florida Power Corporation Intercession City Facility are described below.

1. The following information will be added to Subsection C., Relevant Documents:

These documents are on file with the permitting authority:

Initial Title V Air Operation Permit issued January 5, 1998.

Construction Permit (0970014-002-AC) To Install Inlet Foggers on Units 007-010, issued May 17, 1999. Title V Permit Revision Application received December 27, 1999.

2. The permitting note under the list of emissions units for Section III., Subsection B. will be changed as follows:

FROM:

{Permitting note: CT's. 7 through 10 are regulated under Acid Rain, Phase II. All of the above CT's are regulated under NSPS - 40 CFR 60, Subpart GG (Standards of Performance for Stationary Gas Turbines), which is adopted and incorporated by reference in Rule 62-204.800(7)(b), F.A.C. and a BACT determination, dated August 17, 1992.}

TO:

{Permitting note: CT's. 7 through 10 are regulated under Acid Rain, Phase II. All of the above CT's are regulated under NSPS - 40 CFR 60, Subpart GG (Standards of Performance for Stationary Gas Turbines), which is adopted and incorporated by reference in Rule 62-204.800(7)(b), F.A.C. and a BACT determination (PSD-FL-180), dated August 17, 1992; and, Air Construction Permit No. 0970014-002-AC, issued May 17, 1999.}

3. Specific Condition B.3. (Subsection B., Emission Units -007, -008, -009, & -010, Combustion Turbines) will be changed as follows:

FROM:

B.3. Methods of Operation - Fuels. Only natural gas or new No. 2 fuel oil having a maximum sulfur content of 1 grain per 100 dscf and 0.2% or less, by weight, respectively, shall be fired in these turbines at all times. To comply with the SO₂ emission allowables of 222 lbs/hr/GE CT and 407 lbs/hr/Siemens CT, the fuel oil consumption is 150,770,250 gal./yr. (based on an average 7826 gal/hr/GE CT and an average 13,171 gal/hr/Siemens CT, a capacity factor of 38.7%, 59° F, a 7.1 lbs/gal density, a maximum 0.2% S content by wt., and peak load).

[Rule 62-213.410, F.A.C.; AC 49-203114/PSD-FL-180(A); and, requested in initial Title V permit application received on June 14, 1996.]

TO:

B.3. Methods of Operation.

- a. <u>Fuels</u>. Only natural gas or new No. 2 fuel oil having a maximum sulfur content of 1 grain per 100 dscf and 0.2% or less, by weight, respectively, shall be fired in these turbines at all times. To comply with the SO₂ allowable emissions of 222 lbs/hr/GE CT and 407 lbs/hr/Siemens CT, the fuel oil consumption is 150,770,250 gal./yr. (based on an average 7826 gal/hr/GE CT and an average 13,171 gal/hr/Siemens CT, a capacity factor of 38.7%, 59° F, a 7.1 lbs/gal density, a maximum 0.2% S content by wt., and peak load).
- b. <u>Inlet Foggers</u>. The inlet foggers installed at the compressor inlet to each of the four simple cycle combustion turbines may operate up to 7,000 hours per year in aggregate (average 1,750 hours per unit per year).

[Rule 62-213.410, F.A.C.; AC 49-203114/PSD-FL-180(A); 0970014-001-AV; and, 0970014-002-AC.]

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4. For monitoring purposes, because the permitted allowable emissions are much lower than the NSPS limits imposed by subpart GG, the use of the Acid Rain NO_X CEMs is an acceptable alternative to the use of the water-to-fuel ratio monitors that are required for NSPS compliance. The conditions that impose the water-to-fuel ratio monitors are applicable requirements that must remain in the Title V permit, however, the allowable substitution of the NO_X CEMs to monitor compliance with the BACT limits will be reflected through the use of permitting notes.

The following permitting note will be inserted after condition B.24.:

{Permitting Note: The above requirements are applicable when demonstrating compliance with the NSPS limits. Proper maintenance and use of the Acid Rain NO_X CEMs is an acceptable alternative for monitoring compliance with the BACT limits specified in condition B.7.}

The following permitting note will be inserted after condition B.38.a.:

{Permitting Note: A properly installed and maintained NO_X CEMS may be used as an acceptable alternative to measure periods of excess emissions.}

5. Provided that all applicable testing requirements are met, utilization of data obtained during the annual Relative Accuracy Test Audit (RATA) is an acceptable alternative to conducting an additional Method 20 test for reporting NO_X emissions.

The following permitting note will be inserted after condition B.29.:

{Permitting Note: The annual NO_X and SO₂ tests that are required by Rule 62-297.310(7), F.A.C., can be done during the annual RATA as satisfaction of this requirement, provided all other testing requirements specified in the permit are met.}

The following changes are administrative in nature and are being made for consistency with other recently issued Title V permits.

- 6. Appendix TV-1, Title V Conditions, is hereby updated to Appendix TV-3. Appendix TV-3 incorporates Rule changes promulgated since the Initial Title V Air Operation Permit was issued. All references to TV-1 are changed to TV-3 as follows:
- a. Placard Page

FROM:

Referenced attachments made a part of this permit:

Appendix U-1, List of Unregulated Emissions Units and/or Activities Appendix I-1, List of Insignificant Emissions Units and/or Activities APPENDIX TV-1, TITLE V CONDITIONS (version dated 12/02/97)

TO:

Referenced attachments made a part of this permit revision:

Appendix U-1, List of Unregulated Emissions Units and/or Activities Appendix I-1, List of Insignificant Emissions Units and/or Activities APPENDIX TV-3, TITLE V CONDITIONS (version dated 04/30/99)

PROPOSED Title V Air Operation Permit Revision No.: 0970041-004-AV
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b. Section II. Facility-Wide Conditions.

FROM:

1. APPENDIX TV-1, TITLE V CONDITIONS (version dated 12/02/97), is a part of this permit. {Permitting note: APPENDIX TV-1, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}

TO:

1. APPENDIX TV-3, TITLE V CONDITIONS, is a part of this permit.

{Permitting note: APPENDIX TV-3, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}

FROM:

12. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3), F.A.C., shall be submitted within sixty (60) days after the end of the calendar year. {See condition No. 52., Appendix TV-1, Title V Conditions} [Rule 62-214.420(11), F.A.C.]

TO:

12. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3), F.A.C., shall be submitted within 60 (sixty) days after the end of the calendar year. {See condition No. 51., Appendix TV-3, Title V Conditions} [Rule 62-214.420(11), F.A.C.]

{Permitting Note: The annual statement of compliance must reflect the facility's operation and compliance prior to a "Permit Revision's effective date" and the facility's operation and compliance including and after a "Permit Revision's effective date".}

7. Facility-Wide Condition 4. is hereby changed to the "revised" Risk Management Plan language as follows:

FROM:

- 4. <u>Prevention of Accidental Releases (Section 112(r) of CAA)</u>. If required by 40 CFR 68, the permittee shall submit to the implementing agency:
 - a. a risk management plan (RMP) when, and if, such requirement becomes applicable; and
- b. certification forms and/or RMPs according to the promulgated rule schedule. [40 CFR 68]

TO:

- 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; 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]

Page 5 of 5

8. Facility-Wide Condition 11. is updated with "new" EPA information as follows:

FROM:

11. 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
Operating Permits Section
61 Forsyth Street
Atlanta, Georgia 32303
Telephone: 404/562-9099
Fax: 404/562-9095

TO:

11. 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 & EPCRA Enforcement Branch
Air Enforcement Section
61 Forsyth Street
Atlanta, GA 30303
Phone: 404/562-9155

Fax: 404/562-9163 or 404/562-9164

9. The following permitting note is inserted prior to conditions A.7. and B.9.:

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

Florida Power Corporation Intercession City Facility Facility ID No.: 0970014 Osceola County

Title V Air Operation Permit Revision **PROPOSED Permit No.:** 0970014-004-AV

Permitting Authority:
State of Florida
Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
Title V Section

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

Telephone: 850/488-1344 Fax: 850/922-6979

Title V Air Operation Permit Revision PROPOSED Permit No.: 0970014-004-AV

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Department of Environmental Protection

Jeb Bush Governor Marjory Stoneman Douglas Building 3900 Commonwealth Boulevard Tallahassee, Florida 32399-3000

David B. Struhs Secretary

Permittee:

Florida Power Corporation 3201 34th Street South St. Petersburg, Florida 33711 PROPOSED Permit No.: 0970014-004-AV

Facility ID No.: 0970014

SIC Nos.: 49

Project: Title V Air Operation Permit Revision

This permit is for the operation of the Intercession City Plant. This facility is located at 6525 Osceola Polk County Line Road, Intercession City, Osceola County, UTM Coordinates: Zone 17, 446.3 km East and 3126 km North; Latitude: 28° 15' 38" North and Longitude: 81° 32' 51" West.

STATEMENT OF BASIS: 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 U-1, List of Unregulated Emissions Units and/or Activities
Appendix I-1, List of Insignificant Emissions Units and/or Activities
APPENDIX TV-3, TITLE V CONDITIONS (version dated 04/30/99)
APPENDIX SS-1, STACK SAMPLING FACILITIES (version dated 10/07/96)
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EMISSION AND MONITORING SYSTEM PERFORMANCE REPORT (40 CFR 60; July, 1996)
Phase II Acid Rain Application/Compliance Plan received December 14, 1995.

Effective Date: January 1, 1998

Permit Revision Effective Date: ???, 2000 Renewal Application Due Date: July 5, 2002

Expiration Date: December 31, 2002

Howard L. Rhodes, Director Division of Air Resources Management

HLR/sms/jh

Section I. Facility Information.

Subsection A. Facility Description.

This facility consists of eleven simple cycle combustion turbines (CT), 6 are pre-NSPS and 5 are NSPS Subpart GG sources. Each CT exhausts through a separate stack. Also included in this permit are miscellaneous unregulated and insignificant emissions units and/or activities.

Based on the initial Title V permit application received June 14, 1996, this facility is not a major source of hazardous air pollutants (HAPs).

Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

E.U. ID No.	Brief Description
-001 to -006	6 - Combustion Turbine Peaking Units (Pre-NSPS)
-007 to -011	5 - Combustion Turbines (NSPS)

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

These documents are on file with the permitting authority:

Initial Title V Air Operation Permit issued January 5, 1998.

Construction Permit (0970014-002-AC) To Install Inlet Foggers on Units 007–010, issued May 17, 1999.

Title V Permit Revision Application received December 27, 1999.

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

- 1. APPENDIX TV-3, TITLE V CONDITIONS, is a part of this permit. {Permitting note: APPENDIX TV-3, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a 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. [Rule 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; 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.]
- 7. General Pollutant Emission Limiting Standards. Volatile Organic Compounds Emissions or Organic Solvents Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents 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.]

PROPOSED Title V Permit Revision No.: 0970014-004-AV

- **8.** Not federally enforceable. Reasonable precautions should be taken to prevent emissions of unconfined particulate matter at this facility. Steps presently taken at the facility to minimize particulate emissions are as follows:
- Maintenance of paved areas as needed,
- Regular mowing of grass and care of vegetation,
- Limiting access to plant property by unnecessary vehicles, and
- ♦ Additional or alternative activities may be utilized to minimize unconfined particulate emissions. [Rule 62-296.320(4)(c)2., F.A.C.; and, proposed by applicant in the initial Title V permit application received June 14, 1996.]
- 9. 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.]
- 10. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Central District office:

Department of Environmental Protection Central District Office 3319 Maguire Boulevard, Suite 232 Orlando, Florida 32803-3767 Telephone: 407/894-7555 Fax: 407/897-2966

11. 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 & EPCRA Enforcement Branch
Air Enforcement Section
61 Forsyth Street
Atlanta, GA 30303
Phone: 404/562-9155
Fax: 404/562-9163 or 404/562-9164

12. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3), F.A.C., shall be submitted within 60 (sixty) days after the end of the calendar year. {See condition No. 51., Appendix TV-3, Title V Conditions} [Rule 62-214.420(11), F.A.C.]

{Permitting Note: The annual statement of compliance must reflect the facility's operation and compliance prior to a "Permit Revision's effective date" and the facility's operation and compliance including and after a "Permit Revision's effective date".}

Section III. Emissions Unit(s) and Conditions.

Subsection A. This section addresses the following emissions unit(s).

E. U. ID No.	Brief Description
-001 to -006	Combustion Turbine Peaking Units CTP 1, CTP 2, CTP 3, CTP 4, CTP 5, & CTP 6

The above referenced turbines may fire new No. 2 fuel oil having a maximum sulfur content of 0.5 percent, by weight. Each turbine has a maximum heat input of 708 MMBtu/hour and power a generator rated at 56.7 MW (megawatts of electricity). Emissions are not controlled and each turbine exhausts through a separate stack. These units are not subject to the following federal requirements, NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines or Acid Rain. The above units began commercial service in 1974.

{Permitting Note: The emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required.}

The following specific conditions apply to the above referenced emissions units:

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum heat input rate shall not exceed 708 MMBtu/hour/CT while firing new No. 2 fuel oil.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

- A.2. Emissions Unit Operating Rate Limitation After Testing. See specific condition A.13.
- **A.3.** Methods of Operation Fuels. Only new No. 2 fuel oil having a maximum sulfur content of 0.5 percent, by weight, shall be fired in the turbines at a maximum consumption rate of 123 bbls/hr/turbine. [Rules 62-4.160(2) and 62-213.440(1), F.A.C.; and, AO 49-176549.]
- **A.4.** Hours of Operation. Each emissions unit may operate continuously, i.e., 8,760 hours/year/CT. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

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.}

A.5. <u>Visible Emissions</u>. Visible emissions from each turbine shall not be equal to or greater than 20 percent opacity.

[Rule 62-296.320(4)(b)1., F.A.C.; and, AO 49-176549.]

Florida Power Corporation Intercession City Facility

A.6. Sulfur Content. The sulfur content of the new No. 2 fuel oil shall not exceed 0.5 percent, by weight. [Requested in initial Title V permit application received on June 14, 1996.]

Excess Emissions

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

- A.7. Excess emissions from these emissions units resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
- **A.8.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

 [Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

A.9. The permittee shall demonstrate compliance with the sulfur content limit with a fuel analysis provided by the vendor upon each fuel delivery. See specific condition A.12. [Rule 62-213.440, F.A.C.; and, AO 49-176549.]

A.10. <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) <u>Accuracy of Equipment</u>. 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.]

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.11. The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.

[Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.]

A.12. The fuel sulfur content, percent by weight, provided by the vendor for each delivery of liquid fuels shall be evaluated using either ASTM D2622-94, ASTM D4294-90(95), both ASTM D4057-88 and ASTM D129-91(95), or the latest edition(s). [Rules 62-213.440 and 62-297.440, F.A.C.]

A.13. Operating Rate During Testing.

Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity (i.e., at less than 90 percent of the maximum operation rate allowed by the permit); in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted, provided however, operations do not exceed 100 percent of the maximum operation rate allowed by the permit. Once the emissions 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.

[Rule 62-297.310(2), F.A.C.]

A.14. Applicable Test Procedures.

- (a) Required Sampling Time.
 - 2. Opacity Compliance Tests. 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:
 - 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.

[Rule 62-297.310(4)(a)2.c., F.A.C.]

- **A.15.** <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 fuel for a total of no more than 400 hours.

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- 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;
- 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.
- (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]

A.16. <u>Visible Emissions Testing - Annual</u>. By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning only liquid fuels for less than 400 hours per year.

[Rules 62-297.310(7)(a)4. and 8., F.A.C.]

Record keeping and Reporting Requirements

A.17. <u>Malfunction Reporting.</u> 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.18. 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. [Rule 62-297.310(8), F.A.C.]

Subsection B. This section addresses the following emissions unit.

E.U. ID No.	BRIEF DESCRIPTION
-007 to -010	Combustion Turbine Units CT 7, CT 8, CT 9, & CT 10
-011	Combustion Turbine CT 11

CT's. 7 through 10 are GE PG7111(EA) units and CT 11 is a Siemens V84.3 unit with generator ratings of 96.3 megawatts/CT and 171 megawatts/CT, respectively. The GE CT's and the Siemens CT have a maximum heat input rating at 59° Fahrenheit (F) of 1048 and 1477 MMBtu/hour, respectively. NO_x and SO₂ emissions are controlled with water injection and burning new No. 2 low sulfur fuel oil, respectively. The combustion turbines exhaust through individual stacks. The GE units began commercial service in 1993 and the Siemens unit began commercial service in 1996.

{Permitting note: CT's. 7 through 10 are regulated under Acid Rain, Phase II. All of the above CT's are regulated under NSPS - 40 CFR 60, Subpart GG (Standards of Performance for Stationary Gas Turbines), which is adopted and incorporated by reference in Rule 62-204.800(7)(b), F.A.C. and a BACT determination (PSD-FL-180), dated August 17, 1992; and, Air Construction Permit No. 0970014-002-AC, issued May 17, 1999.}

The following specific conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

- **B.1.** Permitted Capacity. The GE and Siemens turbines have generator nameplate ratings of 96.3 and 171 megawatts, respectively. The heat input to the GE and Siemens turbines at 59° F are 1048 and 1477 MMBtu/hr, respectively. A maximum heat input of 1144 MMBtu/hr/GE CT at 20° F during peak loading and 2032 MMBtu/hr/Siemens CT at 20° F during peak loading shall not be exceeded. The heat input will be corrected in accordance with specific condition B.28. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, AC 49-203114/PSD-FL-180(A)]
- B.2. Emissions Unit Operating Rate Limitation After Testing. See specific condition B.28.

B.3. Methods of Operation.

- a. <u>Fuels</u>. Only natural gas or new No. 2 fuel oil having a maximum sulfur content of 1 grain per 100 dscf and 0.2% or less, by weight, respectively, shall be fired in these turbines at all times. To comply with the SO₂ allowable emissions of 222 lbs/hr/GE CT and 407 lbs/hr/Siemens CT, the fuel oil consumption is 150,770,250 gal./yr. (based on an average 7826 gal/hr/GE CT and an average 13,171 gal/hr/Siemens CT, a capacity factor of 38.7%, 59° F, a 7.1 lbs/gal density, a maximum 0.2% S content by wt., and peak load).
- b. <u>Inlet Foggers</u>. The inlet foggers installed at the compressor inlet to each of the four simple cycle combustion turbines may operate up to 7,000 hours per year in aggregate (average 1,750 hours per unit per year).

[Rule 62-213.410, F.A.C.; AC 49-203114/PSD-FL-180(A); 0970014-001-AV; and, 0970014-002-AC.]

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B.4. Hours of Operation. The cumulative hours of operation for any CT combination, while firing fuel oil with 0.2% S by weight, is 14,455 hours/calendar year (based on an average 2891 hours/year/CT, an average capacity factor of 33%, 59° F, and at peak load). A maximum capacity factor of 38.7% is allowed if the weighted 12-month rolling average sulfur content, by weight, of the fuels burned are 0.16% or less. See specific condition No. B.5.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, AC 49-203114/PSD-FL-180(A)]

B.5. Capacity Factors. The permitted capacity factors for these emissions units are the ratio of average permitted hours of operation for each turbine to the total available hours of operation per year at peak load. The average capacity factor for these turbines shall be limited to 33% (^{2891 hrs}/_{8760 hrs}) at peak load and based on a weighted 12-month rolling average maximum sulfur content of 0.2%, by weight. If the weighted 12-month rolling average sulfur content is less than 0.2%, by weight, the capacity factor and operating hours may be adjusted to a maximum average of 38.7% using the following table:

Weighted 12-Month Rolling Sulfur Content (% by wt.)	% Capacity Factor	Cumulative Hours per Calendar Year (for any CT combination)
0.2 - 0.195	33.0	14,455 (based on an average 2891 hr/CT/yr)
0.19 - 0.185	34.4	15,070 (based on an average 3014 hr/CT/yr)
0.18 - 0.175	35.8	15,680 (based on an average 3136 hr/CT/yr)
0.17 - 0.165	37.2	16,295 (based on an average 3259 hr/CT/yr)
0.16 - or less	38.7	16,950 (based on an average 3390 hr/CT/yr)

[AC 49-303114/PSD-FL-180(A)]

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.}

B.6. Particulate Matter. Particulate matter emissions shall be controlled by the firing of natural gas or low sulfur content No. 2 fuel oil.

[Rule 62-296.406(2), F.A.C.; and, BACT dated August 17, 1992]

B.7. Emissions from CT 7, 8, 9, and 10, while firing natural gas or new No. 2 fuel oil and based on a capacity factor of 38.7%, shall not exceed the following allowables:

	•	CT 7, 8, 9,	CT 7, 8, 9, & 10 Allowables					
Pollutant Fuel		Standard	lbs/hr./CT	TPY				
NO _X Gas		25 ppmvd @ 15% O ₂ - dry basis	107.00	725.46				
	Oil	42 ppmvd @ 15% O ₂ - dry basis	182.00	1,233.96				

		CT 7, 8, 9, & 10 Allowables (continued)					
Pollutant	Fuel	Standard	lbs/hr./CT	TPY 20.27			
SO ₂	Gas	1 grain/100 dscf	2.99				
-	Oil	New No. 2 F.O max. 0.2% S by wt.	222.00	1,505.16			
PM/PM ₁₀	Gas		7.50	50.85			
	Oil	0.01 lb/MMBtu	15.00	101.70			
VOC	Gas	·	3.00	20.34			
	Oil		5.00	33.90			
CO	Gas		21.30	144.41			
	Oil	25 ppmvd	54.00	366.12			
H ₂ SO ₄	Gas		0.44	2.98			
	Oil	New No. 2 F.O max. 0.2% S by wt.	18.00	122.04			
Fluorides (FR)	Oil	New No. 2 F.O max. 0.2% S by wt.					
Mercury (Hg)	Oil	New No. 2 F.O max. 0.2% S by wt.					
Lead (Pb)	Oil	New No. 2 F.O max. 0.2% S by wt.					
Inorganic	Oil	New No. 2 F.O max. 0.2% S by wt.					
Arsenic							
Beryllium (Be)	Oil	New No. 2 F.O max. 0.2% S by wt.					
VE	Gås or	10% - Normal conditions at full load					
	Oil	20% - Exceptional conditions					

<u>Note</u>: These allowables, terms, and relevant information are compiled in Table 1-2, Air Pollutant Emission Allowables and Terms.

[BACT dated August 10, 1995, and accepted by applicant in AC 49-203114/PSD-FL-180(A)]

B.8. Emissions from CT 11, while firing natural gas or new No. 2 fuel oil and based on a capacity factor of 38.7%, shall not exceed the following allowables:

		CT 11 Allowables					
Pollutant	Fuel	Standard	lbs/hr.	TPY			
NO_X	Gas	25 ppmvd @ 15% O ₂ - dry basis	149.00	252.55			
	Oil	42 ppmvd @ 15% O ₂ - dry basis	334.00	566.13			
SO ₂	Gas	1 grain of S per 100 dscf	4.22	7.15			
	Oil	New No. 2 F.O max. 0.2% S by weight	407.00	689.87			
PM/PM ₁₀	Gas		7.50	12.71			
	Oil	0.01 lb/MMBtu	17.00	28.82			
VOC	Gas		5.30	8.98			
	Oil		9.00	15.26			
CO	Gas		30.90	52.38			
	Oil	25 ppmvd	79.00	133.91			
H ₂ SO ₄	Gas	·	0.64	1.08			
	Oil	New No. 2 F.O max. 0.2% S by weight	28.00	47.47			

		CT 11 Allowable	CT 11 Allowables (continued)			
Pollutant	Fuel	Standard	lbs/hr.	TPY .		
Fluorides (FR)	Oil .	New No. 2 F.O max. 0.2% S by weight				
Mercury (Hg)	Oil	New No. 2 F.O max. 0.2% S by weight				
Lead (Pb) Oil		New No. 2 F.O max. 0.2% S by weight				
Inorganic Oil		New No. 2 F.O max. 0.2% S by weight				
Arsenic	,					
Beryllium (Be)	Oil .	New No. 2 F.O max. 0.2% S by weight				
VE Gas or		10% - Normal conditions at full load				
	Oil	20% - Exceptional conditions				

<u>Note</u>: These allowables, terms, and relevant information are compiled in Table 1-3, Air Pollutant Emission Allowables and Terms.

[BACT dated August 10, 1995, and accepted by applicant in AC 49-203114/PSD-FL-180(A)]

Excess Emissions

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

- **B.9.** Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for a longer duration. [Rule 62-210.700(1), F.A.C.]
- **B.10.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

B.11. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[40 CFR 60.11(d)]

B.12. 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.]
- **B.13.** The permittee shall operate a continuous monitoring system (CMS) to monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system shall be accurate to within \pm 5.0 percent and shall be approved by the Administrator. [40 CFR 60. 334(a)]
- **B.14.** The permittee shall monitor sulfur content and nitrogen content of the new No. 2 fuel oil and sulfur content of natural gas. These values may be provided by the vendor and the frequency of determinations of these values shall be as follows:

A. New No. 2 Fuel Oil

The values, sulfur and nitrogen content, shall be determined on each occasion that fuel is transferred to the storage tanks from any other source. Records of these values shall be kept by the facility for a five year period for regulatory agency inspection purposes. For sulfur dioxide, periods of excess emissions shall be reported if the fuel being fired in the gas turbine exceeds 0.2 percent.

B. Natural Gas

Pursuant to 40 CFR 60.334(b)(2), a custom fuel monitoring schedule for the determination of these values shall be followed for the natural gas fired at this facility and shall be as follows:

Custom Fuel Monitoring Schedule for Natural Gas (NG)

1. Monitoring of fuel nitrogen content shall not be required if NG is the only fuel being fired in the gas turbines.

2. Sulfur Monitoring

- a. Analysis for fuel sulfur content of the natural gas shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are ASTM D1072-80, ASTM D3031-81, ASTM D3246-81, and ASTM D4084-82 as referenced in 40 CFR 60.335(b)(2), or the latest edition(s).
- b. This custom fuel monitoring schedule shall become effective on the date this permit becomes valid. Effective the date of this custom schedule, sulfur monitoring shall be conducted twice monthly for six months. If this monitoring shows little variability in the fuel sulfur content,

and indicates consistent compliance with 40 CFR 60.333 and the conditions of this permit, then sulfur monitoring shall be conducted once per quarter for six quarters. If monitoring data is provided by the applicant which demonstrates consistent compliance with the requirements herein the applicant may begin monitoring as per the requirements of 2.c.

- c. If after the monitoring required in item 2.b. above, or herein, the sulfur content of the fuel shows little variability and, calculated as sulfur dioxide, represents consistent compliance with the sulfur dioxide emission limits specified under 40 CFR 60.333 and the conditions of this permit, sample analysis shall be conducted twice per annum. This monitoring shall be conducted during the first and third quarters of each calendar year.
- d. Should any sulfur analysis as required in items 2.b. or 2.c. above indicate noncompliance with 40 CFR 60.333 and the conditions of this permit, the owner or operator shall notify the Department of such excess emissions and the custom schedule shall be re-examined by the Environmental Protection Agency. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
- 3. If there is a change in fuel supply, the owner or operator must notify the Department of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
- 4. Records of sample analysis and fuel supply pertinent to this custom schedule shall be retained for a period of five years, and be available for inspection by personnel of federal, state, and local air pollution control agencies.

[40 CFR 60.334(b)(1) and (2); and, PSD-FL-180(A) amended December 15, 1997]

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.}

B.15. The surrogate for particulate matter (PM/PM₁₀) emissions testing shall be EPA Method 9, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C. If 10% opacity is exceeded at peak load, EPA Method 5, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C., shall be used for particulate matter testing.

[Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.; and AC 49-203114/PSD-FL-180(A)]

B.16. The test method for sulfuric acid mist (H₂SO₄) emissions shall be EPA Method 8, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C. No. 2 fuel oil analysis using ASTM D4294-90, or the latest edition, may be used in lieu of EPA Method 8 for

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the determination of H₂SO₄ mist, only if compliance with the permit allowable for the sulfur content in the No. 2 fuel oil fired at the facility has been demonstrated.

[Rules 62-204.800 and 62-297.401, F.A.C.; and, AC 49-203114/PSD-FL-180(A)]

- **B.17.** The test method for visible emissions (VE) shall be EPA Method 9, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C. [Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.; and, AC 49- 203114/PSD-FL-180(A)]
- **B.18.** The test method for carbon monoxide (CO) emissions shall be EPA Method 10, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C. [Rules 62-204.800 and 62-297.401, F.A.C.; and, AC 49- 203114/PSD-FL-180(A)]
- **B.19.** The test method for nitrogen oxide (NO_x), sulfur dioxide (SO₂), and diluent shall be EPA Method 20, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C.

[Rules 62-204.800 and 62-297.401, F.A.C.; and, AC 49-203114/PSD-FL-180(A)]

B.20. The test method for volatile organic compound (VOC) emissions shall be EPA Method 25A, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C. If compliance with the CO allowables in this permit are demonstrated, testing for VOCs using EPA Method 25A is not required.

[Rules 62-204.800 and 62-297.401, F.A.C.; and, AC 49-203114/PSD-FL-180(A)]

- **B.21.** A compliance test for Fluorides, Mercury, Lead, Inorganic Arsenic, and Beryllium, is not required as long as new No. 2 fuel oil is fired. [AC 49-203114/PSD-FL-180(A)]
- **B.22.** The permittee shall comply with the stack sampling requirements contained in Appendix SS-1, Stack Sampling Facilities (attached). [Rule 62-297.310(6), F.A.C.]
- **B.23.** To compute the nitrogen oxide emissions, the permittee shall use analytical methods and procedures that are accurate to within ±5 percent and are approved by the Administrator to determine the nitrogen content of the fuel being fired.

 [40 CFR 60.335(a)]
- **B.24.** The following shall <u>only</u> be used by the permittee to demonstrate compliance with the nitrogen oxides and sulfur dioxide standards in 40 CFR 60.332 and 40 CFR 60.333:
- a. The nitrogen oxides emission rate (NO_x) shall be computed for each run using the following equation:

 $NO_x = (NO_{xo}) (P_r/P_o)^{0.5} e^{19(Ho - 0.00633)} (288°K/T_a)^{1.53}$ where:

 NO_x = emission rate of NO_x at 15 percent O_2 and ISO standard ambient conditions, volume percent.

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NO_{x0}= observed NO_x concentration, ppm by volume.

 P_r = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg.

P_o= observed combustor inlet absolute pressure at test, mmHg.

H_o= observed humidity of ambient air, g H₂O/g air.

e= transcendental constant, 2.718.

 T_a = ambient temperature, °K.

- b. Testing to establish compliance with the NO_x limit shall be done at capacity, as defined in condition B.28. If testing demonstrates NO_x emissions in excess of the allowable, set forth in this permit when operating at capacity, the following shall apply:
 - 1. The monitoring device of 40 CFR 60.334(a) shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with 40 CFR 60.332 at 30, 50, 75, and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacture.
- c. EPA Method 20 (40 CFR 60, Appendix A) shall be used to determine the nitrogen oxides, sulfur dioxide, and oxygen concentrations. The span values shall be 300 ppm of nitrogen oxide and 21 percent oxygen. The NO_x emissions shall be determined at each of the load conditions specified in specific condition b. above.

[40 CFR 60.335(c)(1),(2) and (3)]

{Permitting Note: The above requirements are applicable when demonstrating compliance with the NSPS limits. Proper maintenance and use of the Acid Rain NO_x CEMs is an acceptable alternative for monitoring compliance with the BACT limits specified in condition B.7.}

- **B.25.** The permittee shall determine compliance with the sulfur content standard in 40 CFR 60.333(b) as follows: ASTM D2880-96 shall be used to determine the sulfur content of liquid fuels and ASTM D 1072-90(94)E-1, D 3031-81(86), D 4084-94, or D 3246-92 shall be used for the sulfur content of gaseous fuels [incorporated by reference in 40 CFR 60.17 or the latest edition(s)]. The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the Dilution ratio) may be used, subject to approval of the Administrator.

 [40 CFR 60.335(d)]
- **B.26.** To meet the requirements of 40 CFR 60.334(b), the permittee shall use the methods specified in 40 CFR 60.335(a) and (d) to determine the nitrogen and sulfur contents of the fuel being burned. The analysis may be performed by the permittee, a service contractor retained by the permittee, the fuel vendor, or any other qualified agency. [40 CFR 60.335(e)]
- **B.27.** 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

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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.]

Operating Rate During Testing

B.28. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity as defined below. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity, in which case subsequent emissions unit operations are limited to 105 percent of the test load 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. The permitted capacity shall at no time be exceeded. Capacity is defined as 95 to 100 percent of the manufacturer's rated heat input achievable for the average ambient (or conditioned) air temperature during the test. If it is impracticable to test at capacity, an emissions unit may be tested at less than capacity. In such cases, the entire heat input vs. inlet temperature curve will be adjusted by the increment equal to the difference between the design heat input value and 105 percent of the value reached during the test. Data, average ambient temperature during the test, capacity vs. ambient temperature curves, and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department with the compliance test report. In no case shall a maximum heat input of 1144 MMBtu/ hr/GE CT at 20° F during peak loading and 2032 MMBtu/hr/Siemens CT at 20° F during peak loading be exceeded.

[Rule 62.297.310(2), F.A.C.; and, AC 49-203114/PSD-FL-180(A)]

- **B.29.** Frequency of Compliance Tests. 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,

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order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

- a. Visible emissions;
- 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; or 100 tons per year or more of any other regulated air pollutant.
- 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 operating 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.
- (b) <u>Special Compliance Tests</u>. When the Department, after investigations, 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, 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]

{Permitting Note: The annual NO_x and SO_2 tests that are required by Rule 62-297.310(7), F.A.C., can be done during the annual RATA as satisfaction of this requirement, provided all other testing requirements specified in the permit are met.}

B.30. 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. 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 (TPY) or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 TPY 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:

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- 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.
- (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) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, CALIBRATION SCHEDULE (attached).
- (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. [Rule 62-297.310(4), F.A.C.] {Table 297.310-1, Calibration Schedule is attached}

B.31. 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.
- 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.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

Recordkeeping and Reporting Requirements

B.32. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

[40 CFR 60.7(b)]

B.33. Each owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form [see 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate). Written reports of excess emissions shall include the following information:

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(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

- (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.
- (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
- (4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report. [40 CFR 60.7(c)(1), (2), (3), and (4)]
- **B.34.** The summary report form shall contain the information and be in the format shown in Figure 1 (attached) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.
- (1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.
- (2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

{See attached Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (electronic file name: figure 1.doc) [40 CFR 60.7(d)(1) and (2)]

- **B.35.** Frequency of Reporting: (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:
- (i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;
- (ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in 40 CFR 60, Subpart A, and the applicable standard; and
- (iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in 40 CFR 60.7(e)(2).
- (2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review

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information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

- (3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in 40 CFR 60.7(e)(1) and (e)(2). [40 CFR 60.7(e)(1)]
- **B.36.** The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least five years following the date of such measurements, maintenance, reports, and records. [Rule 62-213.440(1)(b), F.A.C.; and, 40 CFR 60.7(f)]
- **B.37.** In 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.]
- **B.38.** For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as follows:
- a. Nitrogen oxides. Any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with the applicable requirements in 40 CFR 60.332 by the performance test required in 40 CFR 60.8 or any period during which the fuel-bound nitrogen of the fuel is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the performance test required in 40 CFR 60.8. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, gas turbine load, and nitrogen content of the fuel during the period of excess emissions, and the graphs or figures developed under 40 CFR 60.335(a).

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{Permitting Note: A properly installed and maintained NO_x CEMS may be used as an acceptable alternative to measure periods of excess emissions.}

b. Sulfur dioxide. Any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.2 percent, by weight, pursuant to the BACT.

[40 CFR 60.334(c)(1) & (2); Rule 212.400(6), F.A.C.; and, BACT dated December 14, 1992]

NSPS Common Condition

B.39. 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]

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Section IV. This section is the Acid Rain Part.

Operated by: Florida Power Corporation

8049 ORIS code:

Subsection A. This subsection addresses Acid Rain, Phase II.

The emissions units listed below are regulated under Acid Rain Part, Phase II.

E.U. ID No.	Description
-007	GE PG 7111EA Combustion Turbine - CT 7
-008	GE PG 7111EA Combustion Turbine - CT 8
-009	GE PG 7111EA Combustion Turbine - CT 9
-010	GE PG 7111EA Combustion Turbine - CT 10

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 these acid rain units 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), dated 07/01/95. [Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

2. Sulfur dioxide (SO2) allowance allocations for each Acid Rain unit:

E.U. ID No.	EPA I.D.	Year	2000	2001	2002
-007	7	SO2 allowances, under Table 2 or 3 of 40 CFR 73	699*	699*	699*
-008	8	SO2 allowances, under Table 2 or 3 of 40 CFR 73	699*	699*	699*
-009	9	SO2 allowances, under Table 2 or 3 of 40 CFR 73	699*	699*	699*
-010	10	SO2 allowances, under Table 2 or 3 of 40 CFR 73	699*	699*	699*

^{*}The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2 or 3 of 40 CFR 73.

- 3. Emission Allowances. 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 62-213.440(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), F.A.C.]
- 4. Comments, notes, and justifications: None.

Table 1-1, Air Pollutant Emission Allowables and Terms

Florida Power Corporation Intercession City Facility

	Emissions Uni	t & No.		Allowables per each Combustion Tur			Equivalent Emissions!		•		
	Pollutant	Fuel(s)	Hrs/Yr /CT	Standards(s)	lbs/hr /CT1	TPY	lbs/hr /CT ²	TPY ²	Regulation(s)	Permit Specific Condition(s)	
ſ	E.U001 to -0	06 (CTP	1, CTP 2, C	CTP 3, CTP 4, CTP 5, & CTP 6)		n (sum no quere). Tuegé una una néc		a yang			
	SO ₂	Oil	8760	New No. 2 F.O max. 0.5% S by wt.			364.23	9,571.96	Rule 62-4.070, F.A.C.	A.6	
	VE	Oil	8760	20% opacity					Rule 62-296.320(4)(b)1., F.A.C.	A.5	
F											
t											
-							t the total				
ŀ	•										
		,									

^{1 -} Emissions rates based on 59° F and 15% O₂ at peak load.

^{2 -} Equivalent to 8760 hours per year at peak load.

Table 1-2, Air Pollutant Emission Allowables and Terms

Florida Power Corporation Intercession City Facility

Emissions Unit &	& No.	
Pollutant	Fuel(s)	Hrs/Yr
		/CT

Allowables per each Combustion Turb	ine	
Standards(s)	lbs/hr	TPY
	/CT	

Regulation(s)	Permit Specific
	Condition(s)

E.U007 to -010	(CT 7, CT	8, CT 9, &	CT	10)
NO_X	Gas	3390		25 ppmvd @ 15% (
	Oil	3390		42 ppmvd @ 15% C
SO ₂	Gas	3390	1	1 grain of S per 100
	Oil	2891	l	New No. 2 F.O ma
PM/PM ₁₀	Gas	3390	1	
•	Oil	3390	1	0.01 lb/MMBtu
VOC	Gas	3390	1	
	Oil	3390	1	
CO	Gas	3390		·
	Oil	3390	1	25 ppmvd
H ₂ SO ₄	Gas	3390	1	New No. 2 F.O ma
	Oil	2891	1	
Fluorines (FI)	Oil	3390		New No. 2 F.O ma
Mercury (Hg)	Oil	3390]	New No. 2 F.O ma
Lead (Pb)	Oil	3390	1	New No. 2 F.O ma
Inorganic	Oil	3390	1	New No. 2 F.O ma
Arsenic (As)				
Beryllium (Be)	Oil	3390		New No. 2 F.O ma
VE	Gas or	3390		10% - Normal cond
	Oil			20% - Exceptional

25 ppmvd @ 15% O ₂ - dry basis	- 107.00	725.46°
42 ppmvd @ 15% O ₂ - dry basis	182.00	1233.96°
1 grain of S per 100 dscf	2.99	20.27
New No. 2 F.O max. 0.2% S by wt.	222.00	1283.60 t
	7.50	50.85
0.01 lb/MMBtu	15.00	101.70°
	3.00	20.34°
	5.00	33.90°
	21.30	144.41
25 ppmvd	54.00	366.12
New No. 2 F.O max. 0.2% S by wt.	0.44	2.98
·	18.00	104.08
New No. 2 F.O max. 0.2% S by wt.		d
New No. 2 F.O max. 0.2% S by wt.		d
New No. 2 F.O max. 0.2% S by wt.		d
New No. 2 F.O max. 0.2% S by wt.		d
New No. 2 F.O max. 0.2% S by wt.		d
10% - Normal conditions at full load		
20% - Exceptional conditions		
at peak load		

Rule 62-212.400(6), F.A.C.	B.6
Rule 62-212.400(6), F.A.C.	B.6
BACT	B.6
Rule 62-212.400(6), F.A.C.	B.6
BACT	B.6
Rule 62-212.400(6), F.A.C.	B.6
Rule 62-212.400(6), F.A.C.	B.6
BACT	B.6
BACT	B.6
Rule 62-212.400(6), F.A.C.	B.6

a - Emissions rates based on 59° F and 15% O₂ at peak load.

b - Total TPY for SO₂ assumes 33% capacity factor, 2891 hours/CT/yr at peak load, and fuel with a maximum sulfur content of 0.2%, by weight. Refer to Specific Condition No.

B.5 for listed capacity factors vs. sulfur content in fuel oil and specific condition No. B.3 for the fuel consumption based on the permitted TPY of SO₂ emissions.

c - Equivalent to 3390 hours per year at peak load (38.7% capacity factor) and 59° F.

d - Emissions controlled by standards.

Table 1-3, Air Pollutant Emission Allowables and Terms

Florida Power Corporation Intercession City Facility

Emissions Unit & No.			
Pollutant	Fuel(s)	Hrs/Yr	
		/CT	

Allowables per each Combustion Turbin	ne	
Standards(s)	lbs/hr /CT	TPY

Regulation(s)	Permit Specific
	Condition(s)

E.U011 (CT 14		
NO _X	Gas	3390
	Oil	3390
SO ₂	Gas	3390
	Oil	2891
PM/PM ₁₀	Gas	3390
	Oil	3390
VOC	Gas	3390
	Oil	3390
CO	Gas	3390
	Oil	3390
H ₂ SO ₄	Gas	3390
	Oil	2891
Florins (Fl)	Oil	3390
Mercury (Hg)	Oil	3390
Lead (Pb)	Oil	3390
Inorganic	Oil	3390
Arsenic		
Beryllium (Be)	Oil	3390
VE	Gas or	3390
	Oil	

25 ppmvd @ 15% O ₂ - dry basis	149.00	252.55°
42 ppmvd @ 15% O ₂ - dry basis	334.00	566.13 ª
grain of S per 100 dscf	4.22	7.15°
New No. 2 F.O max. 0.2% S by wt.	407.00	588.32 b
	7.50	12.71°
0.01 lb/MMBtu	17.00	28.82°
	5.30	8.98°
	9.00	15.26°
	30.90	52.38°
25 ppmvd	79.00	133.91°
New No. 2 F.O max. 0.2% S by wt.	0.64	1.08°
	28.00	40.47 b
New No. 2 F.O max. 0.2% S by wt.		. d
New No. 2 F.O max. 0.2% S by wt.		d
New No. 2 F.O max. 0.2% S by wt.		d
New No. 2 F.O max. 0.2% S by wt.		· d
New No. 2 F.O max. 0.2% S by wt.		· d
10% - Normal conditions at full load		
20% - Exceptional conditions		
O. at neak load		

	
Rule 62-212.400(6), F.A.C.	B.7
Rule 62-212.400(6), F.A.C.	B.7
BACT	B.7
Rule 62-212.400(6), F.A.C.	B.7
BACT	B.7
Rule 62-212.400(6), F.A.C.	B.7
Rule 62-212.400(6), F.A.C.	B.7
BACT	B.7
BACT .	B.7
BACT	B.7
Rule 62-212.400(6), F.A.C.	B.7

a - Emissions rates based on 59° f and 15% O₂ at peak load.

b - Total TPY for SO₂ assumes 33% capacity factor, 2891 hours/CT/yr at peak load, and fuel with a maximum sulfur content of 0.2%, by weight. Refer to Specific Condition No.

B.5 for listed capacity factors vs. sulfur content in fuel oil and specific condition No. B.3 for the fuel consumption based on the permitted TPY of SO₂ emissions.

c - Equivalent to 3390 hours per year at peak load (38.7% capacity factor) and 59° F.

d - Emissions controlled by standards.

Table 2-1, Compliance Testing Requirements

Florida Power Corporation Intercession City Facility

E.U. ID							
Pollutant Name or parameter	Fuel(s)	EPA/Reference Method	Testing Time or Frequency	Frequency Base Date ²	Min. Compl. Test Time	CMS	Permit Condition(s)
E.U. CTP - 1, 2, 3	3, 4, 5, & 6						
SO ₂	Oil	F.O. Analysis ¹	Per Delivery ²		NA		A.14, 18, 19,20
VE	Oil	EPA Meth. 9	Annual		1 Hour		A.15
E.U. CT- 7, 8, 9,	10, & 11						
NO _X	Gas	EPA Meth. 20	Annual		3 Hour		B.7
	Oil	EPA Meth. 20	Annual				
SO ₂	Gas		Continuous			yes	
	Oil	F.O. Analysis ¹	Per Delivery ²	-			
PM/PM ₁₀	Gas				_		
	Oil	EPA Meth, 5	Annual				
VOC ³	Gas	EPA Meth. 25A	Annual				
	Oil	EPA Meth. 25A	Annual				
СО	Gas	EPA Meth. 10	Annual				
	Oil	EPA Meth. 10	Annual				
H ₂ SO ₄ ⁴	Gas	EPA Meth. 8	Annual				
	Oil	EPA Meth. 8	Annual				
Fl, Hg, Pb, Be,	Oil	New No.2 F.O	Per Delivery ²	Per Delivery ²	NA		
& As(Inorganic)		max. 0.2% by				*	
		wt.					
VE	Gas	EPA Meth. 9	Annual		1 Hour		B.4
							B.4

¹⁻ Sulfur content of the fuel oil shall be provided by the supplier for every delivery.

²⁻ The custom fuel monitoring schedule in condition No. 3 through 8.

³⁻ Testing with Method 25A not necessary if compliance with CO allowable is demonstrated (ref. to cond. B.20.).

⁴⁻ Fuel Oil analysis using ASTM may be used in lieu of Method 8 if compliance with sulfur content in fuel oil is demonstrated (ref. to cond. B.16.)

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

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, are exempt from the permitting requirements of Chapters 62-210 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 Rule 62-210.300(3)(a), 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 Rule 62.210.300(3)(a), 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.

1	Lube Oil System Vents	
2	Lube Oil Reservoir Tank	
3	Oil Water Separators	
4	Hazardous Waste Building	
5	Parts Washers/Degreasers	
6	Waste Oil Storage Tanks	
7	Lube Oil Storage Building	
8	Portable Unleaded Gasoline Tank	
9	No. 2 Diesel Fuel Tank	

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

<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'.

Emissions Unit	Description
-013	Surface Coating and Solvent Cleaning
-014	General Purpose Engines
-015	Fuel Storage Tanks
-016	Helper Cooling Towers
-017	Emergency Generator

Appendix H-1, Permit History/ID Number Changes

Florida Power Corporation Intercession City Facility

Facility ID No.: 0970014-001-AV

Permit Histor	y (for tracking purposes):					
E.U.					•	
ID No	<u>Description</u>	Permit No.	<u>Issue</u> <u>Date</u>	Expiration Date	Extended Date	Revised Date(s)
-001	Combustion Turbine Peaking Unit #1	AO49-176549	07/20/90	01/15/96		
-001	Combustion Turbine Peaking Unit #2	AO49-176549	07/20/90	01/15/96		•
-001	Combustion Turbine Peaking Unit #3	AO49-176549	07/20/90	01/15/96		
-001	Combustion Turbine Peaking Unit #4	AO49-176549	07/20/90	01/15/96		
-001	Combustion Turbine Peaking Unit #5	AO49-176549	07/20/90	01/15/96		
-001	Combustion Turbine Peaking Unit #6	AO49-176549	07/20/90	01/15/96		
-002	92.9 MW Simple Cycle Gas CT	AC49-203114/	08/17/92	12/31/95		10/06/93
-002	92.9 MW Simple Cycle Gas CT	PSD-FL-180				11/15/93
-002	92.9 MW Simple Cycle Gas CT					07/15/94
-002	185.5 MW Simple Cycle Gas CT					01/20/95
-003	185.5 MW Simple Cycle Gas CT			*		
-001 to -017	Initial Title V Permit	0970014-001-AV	12/31/97	12/31/02		
-007 to -010	Addition of Inlet Foggers	0970014-002-AC	5/17/99	12/31/99		
-001 to -017	Title V Permit Revision to Include Inlet Foggers, NO _X CEMs for Monitoring, and Minor Administrative Corrections.	0970014-004-AV				

(if applicable) ID Number Changes (for tracking purposes):

From: Facility ID No.: 30ORL4900014

To: Facility ID No.: 0970014

Notes:

{Rule 62-213.420(1)(b)2., F.A.C., effective 03/20/96, allows Title V Sources to operate under existing valid permits}

^{1 -} AO permit(s) automatic extension(s) in Rule 62-210.300(2)(a)3.a., F.A.C., effective 03/21/96.

^{2 -} AC permit(s) automatic extension(s) in Rule 62-213.420(1)(a)4., F.A.C., effective 03/20/96.