

MEMORANDUM

TO: Scott Sheplak, P.E.
FROM: Jonathan Holtom, P.E.
DATE: April 30, 2001

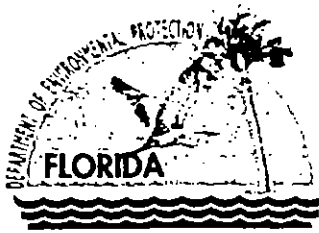
Re: Determination package for PROPOSED Permit No.: 1270028-005-AV
Florida Power Corporation
DeBary Facility

Permit Clock: Today is ARMS Day 27
Day 30: May 3, 2001

This Title V Air Operation Permit Revision incorporates the new inlet fogger conditions from Permit No. 1270028-004-AC into the Title V Air Operation Permit; removes improper language relating to 12-month rolling averages; and, replaces the testing requirement of "...within 60 days of April 1..." to "...within the October 1 to September 30 federal fiscal year...". In addition, other miscellaneous administrative changes, as described as described in the Statement of Basis and the Proposed Permit Determination, will be made during this permitting action.

This is the 2nd revision to the initial Title V Air Operation permit for this emissions unit/facility.

I recommend that this PROPOSED permit revision be sent to EPA for review.



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
DeBary Facility
Facility ID No.: 1270028
Volusia County

Title V Air Operation Permit Revision
PROPOSED Permit No.: 1270028-005-AV

The electronic version of the PROPOSED permit was 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 on May 2, 2001.

USEPA's review period ends on the 45th day after the permit posting date. Day 45 is June 15, 2001. 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 25, 2001.

The web site address is <http://www2.dep.state.fl.us/air>.



Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

May 1, 2001

Wilson B. Hicks, Plant Manager
Florida Power Corporation
P.O. Box 14042, MAC DB44
St. Petersburg, FL 33733-4042

Re: PROPOSED Title V Operation Permit Revision No.: 1270028-005-AV
DeBary Facility

Dear Mr. Hicks:

One copy of the "PROPOSED PERMIT DETERMINATION" for the DeBary Facility located at 788 West Highbanks Road, DeBary, Volusia 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.E.
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)

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PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 1270028-005-AV

I. Public Notice.

An "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION" to Florida Power Corporation for the DeBary Facility located at 788 West Highbanks Road, DeBary, Volusia County, was clerked on February 12, 2001. The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION" was published in the Daytona Beach News-Journal on March 4, 2001. 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 26, 2001.

II. Public Comment(s).

No public comments were received during the 30 (thirty)-day public comment period. However, for improved clarity in tracking permit revisions, the following minor changes have been made to the DRAFT permit:

Appendix H-1, Permit History/ID Number Changes has been renamed Appendix H-1, Permit History, and has been reformatted to provide clearer revision tracking capabilities.

Instead of being included for informational purposes only, Appendix H-1, Permit History has been incorporated into the permit by reference on the placard page. The previous reference in Section II, Subsection C, Relevant Documents has been removed.

Instead of being a separate document, the Statement of Basis has been incorporated into the permit by reference on the placard page.

III. Conclusion.

The DRAFT Title V Air Operation Permit Revision was converted to the enclosed PROPOSED Title V Air Operation permit with the changes listed above.

The permitting authority will issue the PROPOSED Title V Air Operation Permit No. 1270028-005-AV.

STATEMENT OF BASIS

PROPOSED Title V Air Operation Permit Revision No.: 1270028-005-AV
Florida Power Corporation
DeBary Facility
Volusia County

This facility was issued an initial Final Title V Air Operation Permit (Permit No. 1270028-001-AV) on June 14, 1999. The Department issued Air Construction (AC) Permit No. 1270028-004-AC on March 31, 2000. The AC permit authorized the installation of inlet fogging on units P7 through P10 (Combustion Turbines (CTs) 7 – 10). This is the second revision to the initial Title V Air Operation permit. A DRAFT Title V Air Operation permit revision was issued on February 12, 2001. No comments were received in response to the PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION, which was published on March 4, 2001.

This Title V Air Operation Permit Revision incorporates the new inlet fogger conditions from Permit No. 1270028-004-AC into the Title V Air Operation Permit; removes improper language relating to 12-month rolling averages; and, replaces the testing requirement of "...within 60 days of April 1..." to "...within the October 1 to September 30 federal fiscal year...". In addition, other miscellaneous administrative changes, as described below, will be made during this permitting action.

This facility consists of six peaking combustion turbines, which are fired with new No. 6 or new No. 2 fuel oil, and four combustion turbines, which are fired with new No. 2 fuel oil and/or natural gas. The latter four combustion turbines (P7, P8, P9, and P10) are each 92.9-megawatt simple cycle units manufactured by General Electric (Model PG7111EA). The units are fired with natural gas and/or new No. 2 fuel oil containing an average of 0.3 percent (%) sulfur and are equipped with inlet foggers. Annual hours of operation are limited to an equivalent of 3,390 or less based on a sliding scale related to the fuel sulfur content. Control measures and equipment consists of firing relatively clean fuel, good combustion practices, and water injection. Combustion Turbine Unit Nos. 7-10 are not intended to be continuously operated units. Each CT is regulated under Acid Rain, Phase II and NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines. Except for NO_x, air pollutant emissions are dependent on the quality of the fuel burned in the units, and on good combustion. NO_x emissions are controlled by water injection. As stated in the BACT determination, PM/PM10, CO, and VOC emissions are controlled by combustion design and the combustion of clean fuels. The units burn natural gas and/or new No. 2 fuel oil. SO₂ emissions are controlled by restrictions on sulfur content in the fuel oil. The new No. 2 fuel oil's sulfur content by weight shall not exceed 0.30 percent average, based upon a weighted 12 month rolling average, and 0.5 percent maximum. Sulfur content is verified by fuel analysis.

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

Proposed revisions to the Final Title V Permit No. 1270028-003-AV for the Florida Power DeBary Facility are described below.

1. As a result of the provisions of permit No. 1270028-004-AC, Specific Condition B.2. is changed:

FROM:

B.2. Methods of Operation - Fuels.

- a. Startup: The only fuels allowed to be burned are natural gas and/or new No. 2 fuel.
- b. Normal: The only fuels allowed to be burned are natural gas and/or new No. 2 fuel.
[Rule 62-213.410, F.A.C. and AC64-191015(B)]

TO:

B.2. Methods of Operation.

a. Fuels.

1. Startup: The only fuels allowed to be burned are natural gas and/or new No. 2 fuel.
2. Normal: The only fuels allowed to be burned are natural gas and/or new No. 2 fuel.

- b. Inlet Foggers. The inlet foggers installed at the compressor inlet to each of the four simple cycle combustion turbines may operate up to 4,900 hours per year in aggregate (average 1,225 hours per unit per year).

[Rule 62-213.410, F.A.C.; AC64-191015(B); 1270028-003-AV; and, 1270028-004-AC]

Also, the following new Specific Condition B.47 is added and the old B.47. is renumbered to B.48.:

B.47. The permittee shall record on a monthly basis in a written log the number of hours of operation for each evaporative cooling system, and the total combined hours of operation for the previous 12 months for all evaporative cooling systems.

[Rule 62-4.160(15), F.A.C.; and, 1270028-004-AC]

At the applicant's request, the following additional changes have been made.

2. The Department agrees that it is not appropriate to place a 12-month rolling average requirement on an hours per year limitation. Because of this, Specific Condition B.5. is changed:

FROM:

B.5. Hours of Operation. The cumulative hours of operation for any CT combination shall not exceed 13,560 hours/year, 12-month rolling average, at 38.7% capacity factor. **See specific Condition B.4.**
[Rules 62-210.200(PTE) and 62-4.160(2), F.A.C.]

TO:

B.5. Hours of Operation. The cumulative hours of operation for any CT combination shall not exceed 13,560 hours/year, at 38.7% capacity factor. **See specific Condition B.4.**
[Rules 62-210.200(PTE) and 62-4.160(2), F.A.C.]

Also, although not requested in the revision application, the Department feels that it is appropriate to make a similar change to the maximum fuel usage requirements in order to be consistent with the requirements imposed by permit No. AC64-191015(B). As a result, Specific Condition B.3. is changed:

FROM:

B.3. The maximum fuel consumption for the 4 CTs at 59 °F shall not exceed:

- a. 106,133,333 gal/yr, 12-month rolling average.
- b. 14,212 (million cubic feet)/yr, 12-month rolling average.

[AC64-191015(B); proposed by applicant in the initial Title V permit application amendment received August 29, 1997]

TO:

B.3. The maximum fuel consumption for the 4 CTs at 59 °F shall not exceed:

- a. 106,133,333 gal/yr of new No. 2 fuel oil.
- b. 14,212 (million cubic feet)/yr of natural gas.

[AC64-191015(B); and, proposed by applicant in the initial Title V permit application amendment received August 29, 1997]

3. The compliance methods for emissions of NO_x, VOC, PM, and CO are annual stack tests. Since emissions of these pollutants are not required to be continuously monitored for compliance with the limits, a 12-month rolling average is not appropriate. Specific Conditions B.7., B.10., B.11., and B.12 are changed to remove the 12-month rolling average requirement.

Also, although not requested in the revision application, the Department feels that it is appropriate to make a change to the Sulfur Dioxide condition. While it is appropriate to apply a 12-month rolling average to the monitored fuel sulfur content, it is not appropriate (nor previously mandated in any construction permit issued for this facility) to impose a 12-month rolling average to the annual maximum sulfur dioxide emission limit. As a result, Specific Condition B.8. is changed:

FROM:

B.8. Sulfur Dioxide. The new No. 2 fuel oil's sulfur content by weight shall not exceed 0.30 percent average, based upon a weighted 12 month rolling average, and 0.5 percent maximum (555 lb/hr/unit and 1,925 TPY, 12-month rolling average, for all 4 CTs).

[AC64-191015 and BACT Determination dated October 16, 1991]

TO:

B.8. Sulfur Dioxide. The new No. 2 fuel oil's sulfur content by weight shall not exceed 0.30 percent average, based upon a weighted 12 month rolling average, and 0.5 percent maximum (555 lb/hr/unit and 1,925 TPY, total for all 4 CTs).

[AC64-191015 and BACT Determination dated October 16, 1991]

4. Specific Condition B.15. is changed to replace the requirement that annual compliance testing be completed "on or within 60 days prior to April 1" to "each federal fiscal year (October 1 – September 30)".

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

5. The Permitting Note after Specific Conditions A.1. and B.1. is changed as follows:

FROM:

{Permitting note: The heat input and fuel consumption can vary with ambient temperature in accordance with the design curves. The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 - 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability.}

TO:

{Permitting note: The heat input and fuel consumption can vary with ambient temperature in accordance with the design curves. The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 95 - 100 percent of the unit's rated capacity (or to limit future operation to 105 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. See **Specific Condition C.3.**}

6. The record retention requirement in condition B.46. is corrected from two years to five years.

Florida Power Corporation
DeBary Facility
Facility ID No.: 1270028
Volusia County

Title V Air Operation Permit Revision
PROPOSED Permit No.: 1270028-005-AV

(2nd Revision to Initial Title V Permit No.: 1270028-001-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

Compliance Authority

Central District Office
3319 Maguire Boulevard, Suite 232
Orlando, FL 32803-3767
Telephone: 407/894-7555
Fax: 407/897-2966



Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

Permittee:

Florida Power Corporation
3201 34th Street South
St. Petersburg, FL 33711

PROPOSED Permit No.: 1270028-005-AV

Facility ID No.: 1270028

SIC Nos.: 49

Project: Title V Air Operation Permit Revision

This permit is for the operation of the DeBary Facility. This facility is located at 788 West Highbanks Road, DeBary, Volusia; UTM Coordinates: Zone 17, 467.5 km East and 3197.2 km North; Latitude: 28° 54' 17" North and Longitude: 81° 19' 55" 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. This is the second revision to the initial Title V permit.

Referenced attachments made a part of this permit:

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

Appendix H-1, Permit History

Appendix TV-3, Title V Conditions (version dated 04/30/99)

APPENDIX SS-1, STACK SAMPLING FACILITIES (version dated 10/07/96)

Statement of Basis

TABLE 297.310-1, CALIBRATION SCHEDULE (version dated 10/07/96)

FIGURE 1 - SUMMARY REPORT-GASEOUS AND OPACITY EXCESS EMISSION

AND MONITORING SYSTEM PERFORMANCE REPORT (version dated 7/96)

Phase II Acid Rain Application/Compliance Plan received 12/22/95

Effective Date: January 1, 2000

1st Permit Revision Effective Date: June 11, 2000

2nd Permit Revision Effective Date: _____

Renewal Application Due Date: July 5, 2004

Expiration Date: December 31, 2004

Howard L. Rhodes, Director
Division of Air Resources
Management

HLR/sms/h

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Section I. Facility Information.

Subsection A. Facility Description.

This facility consists of six peaking combustion turbines which are fired with new No. 6 or new No. 2 fuel oil and four combustion turbines which are fired with new No. 2 fuel oil and/or natural gas.

The latter four combustion turbines (P7, P8, P9, P10) are each 92.9 megawatt simple cycle units manufactured by General Electric (Model PG7111EA). The units are fired with natural gas and/or new No. 2 fuel oil containing an average of 0.3 percent (%) sulfur. Annual hours of operation are limited to an equivalent of 3,390 or less based on a sliding scale related to the fuel sulfur content. Control measures and equipment consists of firing relatively clean fuel, good combustion practices, and water injection.

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

Based on the initial Title V permit application received June 14, 1996, this facility is a major source of hazardous air pollutants (HAPs).

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

E.U.

<u>ID No.</u>	<u>Brief Description</u>
-003	Peaking Combustion Turbine Unit No. 1
-005	Peaking Combustion Turbine Unit No. 2
-007	Peaking Combustion Turbine Unit No. 3
-009	Peaking Combustion Turbine Unit No. 4
-011	Peaking Combustion Turbine Unit No. 5
-013	Peaking Combustion Turbine Unit No. 6
-015	Combustion Turbine Unit No. 7
-016	Combustion Turbine Unit No. 8
-017	Combustion Turbine Unit No. 9
-018	Combustion Turbine Unit No. 10

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:

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

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

Table 2-1, Summary of Compliance Requirements

These documents are on file with the permitting authority:

Initial Title V Permit Application Received June 14, 1996.

Additional Information Request Dated March 5, 1997

Additional Information Response Received June 3, 1997

Initial Title V Permit issued June 14, 1999

1st Title V Permit Revision Application Received December 27, 1999

1st Revision to the Initial Title V permit issued June 11, 2000

2nd Title V Permit Revision Application Received December 21, 2000

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. Insignificant Emissions Units and/or Activities. 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.]

6. **Not federally enforceable.** 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.]

7. Not federally enforceable. Unconfined emissions of Particulate Matter. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any emissions unit whatsoever, including, but not limited to, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrially related activities such as loading, unloading, storing or handling, without taking reasonable precautions to prevent such emission.

Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

- a. Paving and maintenance of roads, parking areas and yards.
- b. Landscaping or planting of vegetation.
- c. Limiting access to plant property by unnecessary vehicles.

[Rule 62-296.320(4)(c)1. & 3., F.A.C.; and, proposed by applicant in the initial Title V permit application received June 14, 1996.]

8. 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.]

9. 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 52., APPENDIX TV-1, TITLE V CONDITIONS}

[Rule 62-214.420(11), 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:

Central District Office
3319 Maguire Boulevard, Suite 232
Orlando, FL 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 and Conditions.

Subsection A. This section addresses the following emissions unit.

E.U.

<u>ID No.</u>	<u>Brief Description</u>
-003	Peaking Combustion Turbine Unit No. 1
-005	Peaking Combustion Turbine Unit No. 2
-007	Peaking Combustion Turbine Unit No. 3
-009	Peaking Combustion Turbine Unit No. 4
-011	Peaking Combustion Turbine Unit No. 5
-013	Peaking Combustion Turbine Unit No. 6

Each of the six peaking combustion turbines (PCT) is a General Electric, Model MS 7000. The output is rated at 51,900 KW. New No. 2 or new No. 6 fuel oil is allowed to be fired, with the sulfur content not to exceed 0.5% and 0.7 % by weight, respectively. Commercial operation began on February 6, 1976; March 20, 1976; December 31, 1975; April 14, 1976; December 22, 1975; and April 30, 1975, respectively for PCT Units 1 through 6.

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

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The operation rate for each PCT shall not exceed:

- 640 MMBtu/hr (LHV) at 59 °F using new No. 6 fuel oil, or
- 745 MMBtu/hr (LHV) at 59 °F using new No. 2 fuel oil.

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

{Permitting note: The heat input and fuel consumption can vary with ambient temperature in accordance with the design curves. The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 95 - 100 percent of the unit's rated capacity (or to limit future operation to 105 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. **See Specific Condition C.3.**}

A.2. Methods of Operation - Fuels.

- Startup: The only fuels allowed to be burned are new No. 2 or new No. 6 fuel oil.
- Normal: The only fuels allowed to be burned are new No. 2 or new No. 6 fuel oil. New No. 2 fuel oil shall not be co-fired with new No. 6 fuel oil.

[Rule 62-213.410, F.A.C.]

A.3. Hours of Operation. Each PCT is allowed to operate continuously, i.e., 8,760 hours/year.
[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.4. Sulfur Dioxide. The maximum sulfur content of the new No. 2 fuel oil shall not exceed 0.5 percent by weight.
[AO64-207447 and proposed by applicant in the initial Title V permit application received June 14, 1996]

A.5. Sulfur Dioxide. The maximum sulfur content of the new No. 6 fuel oil shall not exceed 0.7 percent by weight.
[AC64-2116, AC64-2117, AC64-2118, AC64-2119, AC64-2120, AC64-2121, AO64-207447 and proposed by applicant in the initial Title V permit application received June 14, 1996]

A.6. Visible emissions. Visible emissions from each PCT unit shall not be equal to or greater than 20 percent opacity.
[Rule 62-296.320(4)(b)1., F.A.C. and AO64-207447]

Monitoring of Operations

A.7. The permittee shall demonstrate compliance with the liquid fuel sulfur limit by means of a fuel analysis provided by the vendor upon each fuel delivery. See **Specific Condition A.9.**
[Rule 62-213.440, F.A.C.]

A.8. 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.]

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.9. The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-94, ASTM D4294-90(95), or both ASTM D4057-88 and ASTM D129-95 or the latest edition of the above ASTM methods.

[Rules 62-213.440 and 62-297.440, F.A.C.]

A.10. The test method for visible emissions shall be EPA Method 9, adopted and incorporated 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.]

A.11. PCT Units No. 1 through 6 shall be tested in accordance with EPA Method 9 within 10 days after being placed back in operation using new No. 6 fuel oil.

[AO64-207447]

A.12. PCT Units No. 1 through 6 shall be tested for visible emissions annually on or within 60 days prior to April 1.

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

A.13. Opacity Compliance Tests. When EPA Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.

b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish

the relationship between a proposed surrogate standard and an existing mass emission limiting standard.

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

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

A.14. (a) General Compliance Testing.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

a. Did not operate; or

b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 -- September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

a. Visible emissions;

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.

{Permitting Note: The owner or operator shall conduct testing for visible emissions while firing fuel oil for each combustion turbine upon that turbine's exceeding 400 hours of operation on fuel oil in any given federal fiscal year (October 1 through September 30). Regardless of the number of hours of operation on fuel oil, at least one compliance test shall be conducted on all ten combustion turbines every five years, coinciding with the term of the operation permit for these turbines.}

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

A.15. These emissions units are also subject to conditions contained in Subsection C. Common Conditions.

Subsection B. This section addresses the following emissions units.

E.U.

<u>ID No.</u>	<u>Brief Description</u>
-015	Combustion Turbine Unit No. 7
-016	Combustion Turbine Unit No. 8
-017	Combustion Turbine Unit No. 9
-018	Combustion Turbine Unit No. 10

Each simple cycle combustion turbine (CT) is a General Electric PG7111EA model with a nameplate rating of 92.9 MW at ISO conditions. Each CT is allowed to burn new No. 2 fuel oil and/or natural gas. NO_x emissions are controlled by water-injection. These emissions units began commercial operation on November 1, 1992.

{Permitting notes: Each CT is regulated under Acid Rain, Phase II; NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(7), F.A.C.; NSPS 40 CFR 60 Subpart A; Rule 212.400(5), F.A.C., Prevention of Significant Deterioration (PSD); Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination, dated October 16, 1991; and, Air Construction Permit No. 1270028-002-AC, issued May 6, 1997.}

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

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The operation rate for each CT shall not exceed:

- a. 1,144 MMBtu/hr/unit (LHV) at 20°F using new No. 2 oil, or
- b. 1,159 MMBtu/hr/unit (LHV) at 20°F using natural gas.

[Rules 62-4.160(2), 62-210.200(PTE), F.A.C. and AC64-191015(B)]

{Permitting note: The heat input and fuel consumption can vary with ambient temperature in accordance with the design curves. The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 95 - 100 percent of the unit's rated capacity (or to limit future operation to 105 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. **See Specific Condition C.3.**}

B.2. Methods of Operation.

a. **Fuels.**

1. Startup: The only fuels allowed to be burned are natural gas and/or new No. 2 fuel.
2. Normal: The only fuels allowed to be burned are natural gas and/or new No. 2 fuel.

- b. Inlet Foggers. The inlet foggers installed at the compressor inlet to each of the four simple cycle combustion turbines may operate up to 4,900 hours per year in aggregate (average 1,225 hours per unit per year).

[Rule 62-213.410, F.A.C.; AC64-191015(B); 1270028-003-AV; and, 1270028-004-AC]

B.3. The maximum fuel consumption for the 4 CTs at 59 °F shall not exceed:

- a. 106,133,333 gal/yr of new No. 2 fuel oil.
b. 14,212 (million cubic feet)/yr of natural gas.

[AC64-191015(B); and, proposed by applicant in the initial Title V permit application amendment received August 29, 1997]

B.4. The capacity factor shall be limited to 33% based on a weighted 12-month rolling average sulfur content of 0.30 %. However, if the weighted rolling average sulfur content of the fuel oil is less than 0.30%, the capacity factor may be adjusted using the following table:

<u>Percent Average Sulfur Content</u>	<u>% Capacity Factor</u>	<u>Cumulative Hours/Year for any four CT</u>
0.30 - 0.295	33	11,564 (based on an average of 2891 hr/CT/yr)
0.29 - 0.285	34.4	12,056 (based on an average of 3014 hr/CT/yr)
0.28 - 0.275	35.8	12,544 (based on an average of 3136 hr/CT/yr)
0.27 - 0.265	37.2	13,036 (based on an average of 3259 hr/CT/yr)
0.26 - or less	38.7	13,560 (based on an average of 3390 hr/CT/yr)

[AC64-191015]

B.5. Hours of Operation. The cumulative hours of operation for any CT combination shall not exceed 13,560 hours/year, at 38.7% capacity factor. **See specific Condition**

B.4.

[Rules 62-210.200(PTE) and 62-4.160(2), 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.}

B.6. All emission limits in **Specific Conditions B.7.** through **B.14.** are based on operation at 59 °F and 15% O₂.

[AC64-191015]

B.7. Nitrogen Oxides. NO_x emissions shall not exceed:

- a. 42 ppmvd @ 15% O₂ (182 lb/hr/unit and 1,234 TPY, for all 4 CTs) while firing new No. 2 fuel oil.
- b. 25 ppmvd @ 15% O₂ (107 lb/hr/unit and 726 TPY, for all 4 CTs) while firing natural gas.

[AC64-191015, BACT Determination dated October 16, 1991, and 40 CFR 60.332]

B.8. Sulfur Dioxide. The new No. 2 fuel oil's sulfur content by weight shall not exceed 0.30 percent average, based upon a weighted 12 month rolling average, and 0.5 percent maximum (555 lb/hr/unit and 1,925 TPY, total for all 4 CTs).

[AC64-191015 and BACT Determination dated October 16, 1991]

B.9. Sulfur Dioxide. The sulfur content of the natural gas shall not exceed 0.8 percent by weight.

[40 CFR 60.333(b)]

B.10. Particulate Matter. PM/PM₁₀ emissions shall not exceed 0.015 lb/MMBtu (15.0 lb/hr/unit and 102 TPY, for all 4 CTs).

[AC64-191015 and BACT Determination dated October 16, 1991]

B.11. Volatile Organic Compound. VOC emissions shall not exceed 5 lb/hr/unit and 34 TPY, for all 4 CTs.

[AC64-191015 and BACT Determination dated October 16, 1991]

B.12. Carbon Monoxide. CO emissions shall not exceed 54 lb/hr/unit and 365 TPY, for all 4 CTs.

[AC64-191015 and BACT Determination dated October 16, 1991]

B.13. Sulfuric Acid Mist. The sulfur content by weight shall not exceed 0.30 percent, based upon a weighted 12-month rolling average, and 0.5 percent maximum (69 lb/hr/unit and 469 TPY, 12-month rolling average, for all 4 CTs).

[AC64-191015 and BACT Determination dated October 16, 1991]

B.14. Visible Emissions. Visible emissions shall not exceed 20 percent opacity except at full load, in which case visible emissions shall not exceed 10 percent opacity.

[AC64-191015]

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. As required by this permit, compliance tests shall be conducted each federal fiscal year (October 1 – September 30) for the pollutants listed in **Specific Conditions B.16.** through **B.23.**, below.
[Rule 62-297.310(7), F.A.C.]

B.16. Nitrogen Oxides. The test method for NO_x emissions shall be EPA Method 20.
[AC64-191015]

B.17. Sulfur Dioxide. The owner or operator shall determine compliance with the sulfur content standard in **Specific Conditions B.8. and B.9.** as follows: Fuel analysis as specified in ASTM D 2880-94, or the latest edition, shall be used to determine the sulfur content of liquid fuels and ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81, or the latest edition, shall be used for the sulfur content of gaseous fuels (incorporated by reference-see 40 CFR 60.17). 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 the approval of the Administrator.
[AC64-191015 and 40 CFR 60.335(d)]

B.18. Particulate Matter. The test method for PM/PM₁₀ shall be EPA Method 5 or Method 17.
[AC64-191015]

B.19. A one hour opacity test for each CT with opacity values no greater than 10% at full load, may serve as the annual particulate matter test. If however, opacity values from any CT are over 10% at full load, then a Method 5 or Method 17 particulate test must be conducted on the CT(s) to prove compliance with the particulate matter standard.
[PSD-FL-167]

B.20. Volatile Organic Compounds. The test method for VOC shall be EPA Method 25A. Testing is not required if compliance with CO limit is shown.
[AC64-191015]

B.21. Carbon Monoxide. The test method for CO shall be EPA Method 10.
[AC64-191015]

B.22. Visible Emissions. The test method for visible emissions shall be EPA Method 9.
[AC64-191015]

B.23. Sulfuric Acid Mist. The test method for sulfuric acid mist shall be EPA Method 8 or fuel analysis as specified in ASTM D 2880-94 or the latest edition.
[AC64-191015 and 40 CFR 60.335(d)]

B.24. Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

[40 CFR 60.8(c)]

B.25. Compliance with standards in 40 CFR 60, other than opacity, shall be determined in accordance with performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard.

[40 CFR 60.11(a)]

B.26. 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 operation and maintenance procedures, and inspection of the source.

[40 CFR 60.11(d)]

B.27. Credible Evidence. For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in 40 CFR 60, nothing in 40 CFR 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

[40 CFR 60.11(g)].

B.28. Circumvention. 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]

B.29. To compute the nitrogen oxide emissions, the owner or operator 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.30. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of 40 CFR 60 or other methods and procedures as specified in this permit, except as provided for in 40 CFR 60.8(b). Acceptable alternative methods and procedures are given in paragraph 40 CFR 60.335(f).
[40 CFR 60.335(b)]

B.31. To meet the requirements of 40 CFR 60.334(b), the owner or operator shall use the methods specified in 40 CFR 60.335(a) and 40 CFR 60.335(d) of 40 CFR 60.335 to determine the nitrogen and sulfur contents of the fuel being burned. The analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.
[40 CFR 60.335(e)]

B.32. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.
[Rule 62-297.310(1), F.A.C.]

B.33. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

B.34. Applicable Test Procedures.

(a) Required Sampling Time.

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. **Opacity Compliance Tests.** When EPA Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.

b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

(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, 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.]

B.35. 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.36. The permittee shall comply with the requirements contained in APPENDIX SS-1, Stack Sampling Facilities, attached to this permit.

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

B.37. 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, 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; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and

10. An annual compliance test conducted for visible emissions shall not be required for units exempted from permitting at Rule 62-210.300(3)(a), F.A.C., or units permitted under the General Permit provisions at Rule 62-210.300(4), F.A.C.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct

compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.
[Rule 62-297.310(7), F.A.C. and SIP approved]

{Permitting Note: The owner or operator shall conduct testing for visible emissions while firing fuel oil for each combustion turbine upon that turbine's exceeding 400 hours of operation on fuel oil in any given federal fiscal year (October 1 through September 30). Regardless of the number of hours of operation on fuel oil, at least one compliance test shall be conducted on all ten combustion turbines every five years, coinciding with the term of the operation permit for these turbines.}

{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.}

Monitoring of Operations

B.38. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG shall monitor sulfur content and nitrogen content of the fuel being fired in the turbine. The frequency of determination of these values shall be as follows:

(1) If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source.

(2) If the turbine is supplied its fuel without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Administrator before they can be used to comply with 40 CFR 60.334(b).

[40 CFR 60.334(b)(1) and (2)]

B.39. 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 sulfur content, for compliance purposes, shall be based on a weighted 12 month rolling average from fuel delivery receipts. 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. The sulfur content of the fuel oil shall be based on a weighted 12 month rolling average and shall not exceed 0.3%. The maximum weighted sulfur content of the fuel oil shall not exceed 0.5% at any time. Records of these values shall be kept by the facility for a five year period for regulatory agency inspection purposes.

B. Natural Gas

Pursuant to 40 CFR 60.344(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

1. Monitoring of fuel nitrogen content shall not be required when firing natural gas.
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, or the latest edition of the above ASTM methods as referenced in 40 CFR 60.335(d).
 - b. This custom fuel monitoring schedule became effective on October 25, 1997. 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 quarter 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 samples 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.

[Rule 62-4.070(3), F.A.C., AC64-191015(B) and EPA's October 25, 1997 approval letter]

{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.}

Continuous Monitoring Requirements

B.40. The 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:

(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.41. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG and using water injection to control NO_x emissions shall install and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. This system shall be accurate to within ± 5.0 percent and shall be approved by the Administrator.

[40 CFR 60.334(a)]

Recordkeeping and Reporting Requirements

B.42. 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 permitted nitrogen oxide standard by the initial 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 initial performance test. 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).

[Rule 62-204.800, F.A.C.; 40 CFR 60.334(c)(1)]

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

B.43. 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.44. 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.
[40 CFR 60.7(d)(1) and (2)]

B.45. (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 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 non-complying 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)]

B.46. The permittee shall maintain a file of all measurements, including continuous monitoring systems, 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; 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.

[40 CFR 60.7(f)]

B.47. The permittee shall record on a monthly basis in a written log the number of hours of operation for each evaporative cooling system, and the total combined hours of operation for the previous 12 months for all evaporative cooling systems.

[Rule 62-4.160(15), F.A.C.; and, 1270028-004-AC]

B.48. This emissions unit is also subject to conditions contained in **Subsection C. Common Conditions.**

Subsection C. Common Conditions.

E.U.

<u>ID No.</u>	<u>Brief Description</u>
-003	Peaking Combustion Turbine Unit No. 1
-005	Peaking Combustion Turbine Unit No. 2
-007	Peaking Combustion Turbine Unit No. 3
-009	Peaking Combustion Turbine Unit No. 4
-011	Peaking Combustion Turbine Unit No. 5
-013	Peaking Combustion Turbine Unit No. 6
-015	Combustion Turbine Unit No. 7
-016	Combustion Turbine Unit No. 8
-017	Combustion Turbine Unit No. 9
-018	Combustion Turbine Unit No. 10

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

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.}

C.1. 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 longer duration. [Rule 62-210.700(1), F.A.C.]

C.2. 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.]

Test Methods and Procedures

C.3. Testing of emissions shall be conducted with the source operating at permitted capacity. Permitted capacity is defined as 95 - 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, then sources 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, 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.
[Rule 62-297.310(2), F.A.C. and AC64-191015(B)]

Recordkeeping and Reporting Requirements

C.4. In case of excess emissions resulting from malfunctions, Florida Power Corporation, shall notify the Department's Central District Office in accordance with 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.]

C.5. The owner or operator shall notify the Central District Office of the Department, in writing, at least 15 days prior to the date on which each test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
[Rule 62-297.310(7)(a)9., F.A.C.]

C.6. 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.

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

C.7. Recordkeeping for periodic monitoring. The owner or operator is required to maintain monthly logs of all 12-month rolling averages.

[Rule 62-213.440, F.A.C.]

Section IV. This section is the Acid Rain Part.

Operated by: Florida Power Corporation
ORIS code: 6046

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

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

<u>E.U. ID No.</u>	<u>Brief E.U. Description</u>
-015	Combustion Turbine Unit No. 7
-016	Combustion Turbine Unit No. 8
-017	Combustion Turbine Unit No. 9
-018	Combustion Turbine Unit No. 10

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

A.2. Sulfur dioxide (SO₂) allowance allocations requirements for each Acid Rain unit is as follows:

<u>E.U. ID No.</u>	<u>EPA ID</u>	<u>Year</u>	2000	2001	2002	2003	2004
-015	01	SO2 allowances, under Table 2 or 3 of 40 CFR Part 73	699*	699*	699*	699*	699*
-016	02	SO2 allowances, under Table 2 or 3 of 40 CFR Part 73	699*	699*	699*	699*	699*

<u>E.U. ID</u> <u>No.</u>	<u>EPA ID</u>	<u>Year</u>	2000	2001	2002	2003	2004
-017	03	SO2 allowances, under Table 2 or 3 of 40 CFR Part 73	699*	699*	699*	699*	699*
-018	04	SO2 allowances, under Table 2 or 3 of 40 CFR Part 73	699*	699*	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.

A.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.

1. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.

2. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.

3. Allowances shall be accounted for under the Federal Acid Rain Program.

[Rule 62-213.440(1)(c), F.A.C.]

A.4. Fast-Track Revisions of Acid Rain Parts. Those Acid Rain sources making a change described at Rule 62-214.370(4), F.A.C., may request such change as provided in Rule 62-213.413, Fast-Track Revisions of Acid Rain Parts.

[Rule 62-213.413, F.A.C.]

A.5. Comments, notes, and justifications: None

Section IV. Referenced Attachments

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)
TABLE 297.310-1, CALIBRATION SCHEDULE (version dated 10/07/96)
FIGURE 1 - SUMMARY REPORT-GASEOUS AND OPACITY EXCESS EMISSION
AND MONITORING SYSTEM PERFORMANCE REPORT (version dated 7/96)
Phase II Acid Rain Application/Compliance Plan received 12/22/95
Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers
Appendix H-1, Permit History/ID Number Changes
Table 1-1, Summary of Air Pollutant Standards and Terms
Table 2-1, Summary of Compliance Requirements

Appendix H-1, Permit History

Florida Power Corporation
DeBary Facility

PROPOSED Title V Permit Revision No.: 1270028-005-AV
Facility ID No.: 1270028

Regulated Emissions Units:

E.U. ID No.	Brief Emission Unit Description
-003	Peaking Combustion Turbine Unit No. 1
-005	Peaking Combustion Turbine Unit No. 2
-007	Peaking Combustion Turbine Unit No. 3
-009	Peaking Combustion Turbine Unit No. 4
-011	Peaking Combustion Turbine Unit No. 5
-013	Peaking Combustion Turbine Unit No. 6
-015	Combustion Turbine Unit No. 7
-016	Combustion Turbine Unit No. 8
-017	Combustion Turbine Unit No. 9
-018	Combustion Turbine Unit No. 10

Permit History (for tracking purposes):

E.U. ID No.	Brief Project Description	Permit No.	Effective Date	Expiration Date
-015 – -018	Construction permit modification to add natural gas combustion to turbines 7, 8, 9 & 10	1270028-002-AC	5/6/97	12/31/97
All	Initial Title V Permit	1270028-001-AV	1/1/00 (Iss. 6/14/99)	12/31/04
All	Title V Permit Revision #1 - changes the continuous monitoring method for NO _x to CEMs; and, allows the use of RATA in lieu of additional Method 20 NO _x stack test.	1270028-003-AV	6/11/00	12/31/04
-015 – -018	Construction permit modification to install inlet foggers on turbines 7, 8, 9 & 10	1270028-004-AC	3/31/00	3/31/05
-015 – -018	Title V Permit Revision #2 – to incorporate the inlet fogging conditions of 1270028-004-AC	1270028-005-AV	(See Placard)	12/31/04