


## Florida's PROPOSED Permit Electronic Notification Cover Memorandum

**TO:** Gracy Danois, U.S. EPA Region 4  
**CC:** Jeaneanne Gettle, U.S. EPA Region 4  
**THRU:** Scott Sheplak, P.E., Bureau of Air Regulation  
**FROM:** Edward J. Svec, Permit Engineer   
**DATE:** January 15, 2004  
**RE:** U.S. EPA Region 4 PROPOSED Title V Operation Permit Revision Review

The following PROPOSED Title V operation permit(s) revision and associated documents have been posted on the DEP World Wide Web Internet site for your review. The PROPOSED permit is to incorporate the recent changes to an ESP authorized by permit 1030011-007-AC at Progress Energy Florida's Bartow Plant. Please provide any comments via Internet E-mail, within forty five (45) days of receiving this notice, to Scott Sheplak, at "SHEPLAK\_S@dep.state.fl.us".

| <u>Applicant Name</u>                         | <u>County</u> | <u>Method of Transmittal</u> | <u>Electronic File Name(s)</u> |
|---|---------------|------------------------------|--------------------------------|
| Progress Energy Florida<br>Bartow Power Plant | Pinellas      | INTERNET                     | 1030011Rp.zip                  |

This zipped file contains the following electronic files:

sob.doc  
1030011Rp.doc  
10300111.xls  
10300112.xls  
1030011g.doc  
1030011u.doc  
1030011h.doc

# Memorandum

# Florida Department of Environmental Protection

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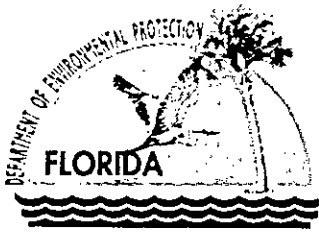
TO: Trina Vielhauer  
THRU: Scott Sheplak *SS*  
FROM: Edward Svec *ES*  
DATE: January 12, 2004  
SUBJECT: Progress Energy Florida  
Title V Permit Revision  
1030011-008-AV

Attached is the PROPOSED Title V Permit Revision 1030011-008-AV for the Progress Energy Florida Bartow Facility for your review and approval. Comments on the DRAFT Permit Revision were received from Pinellas County Department of Environmental Management Air Quality Division and a minor change was made to the description of the emissions unit affected by the revision.

I recommend your approval of this PROPOSED permit.

Attachments

/es



Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

January 16, 2004

Ms. Brenda Brickhouse  
Bartow Plant Manager  
Progress Energy Florida  
1601 Weedon Island Drive  
St. Petersburg, Florida 33702

Re: Title V Air Operation Permit Revision  
PROPOSED Permit Project No.: 1030011-008-AV  
Revision to Title V Air Operation Permit No.: 1030011-002-AV  
P. L. Bartow Plant

Dear Ms. Brickhouse:

One copy of the "PROPOSED Determination" for the Title V Air Operation Permit Revision for the P. L. Bartow Plant located at 1601 Weedon Island Drive, St. Petersburg, Pinellas County, is enclosed. This letter is only a courtesy to inform you that the DRAFT Permit 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://www.dep.state.fl.us/air/permitting/airpermits/AirSearch\\_ltd.asp](http://www.dep.state.fl.us/air/permitting/airpermits/AirSearch_ltd.asp)"

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 Edward J. Svec at 850/921-8985.

Sincerely,

Trina L. Vielhauer, Chief  
Bureau of Air Regulation

TV/es

Enclosures

copy furnished to:  
Gerald Kissel, P.E., FDEP SWD  
Peter Hessling, PCDEM AQD  
USEPA, Region 4 (INTERNET E-mail Memorandum)

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## PROPOSED Determination

Title V Air Operation Permit Revision  
PROPOSED Permit Project No.: 1030011-008-AV  
Revision to Title V Air Operation Permit No.: 1030011-002-AV  
Page 1 of 3

### **I. Public Notice.**

An "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION" to Progress Energy Florida for the P. L. Bartow Plant located at 1601 Weedon Island Drive, St. Petersburg, Pinellas County was clerked on November 13, 2003. The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION" was published in the St. Petersburg Times on November 26, 2003. The DRAFT Permit was available for public inspection at the Department's Southwest District office in Tampa and the permitting authority's office in Tallahassee. Proof of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION" was received on December 3, 2003:

### **II. Public Comment(s).**

Comments were received and the DRAFT Permit was changed. The comments were not considered significant enough to reissue the DRAFT Permit and require another Public Notice. Comments were received from one respondent during the 30 (thirty) day public comment period. The comment(s) will not be restated.

A. Electronic mail from Mr. Gary Robbins, Pinellas County Department of Environmental Management, dated November 25, 2003, and received on November 25, 2003.

1. **Response:** The Department agrees with the comment and will make the following changed to the description of Emissions Unit I.D. -001:

**From:** Unit No. 1 is a front-fired, fossil fuel steam generator which produces 120 megawatts, electric power. The maximum heat input rate is 1,220 million Btu per hour and the unit fires No. 2 through No. 6 fuel oil, and on-specification used oil. Particulate matter emissions are controlled by a General Electric Services, Inc. Model 1-BAB1.2X37(9)36.0-434-4.3P electrostatic precipitator consisting of five fields in depth. The permit application indicates this ESP was designed to operate when utilizing a coal/oil mixture which is no longer burned by Progress Energy Florida. The permittee was authorized to redesign the existing electrostatic precipitator (ESP) from three mechanical fields to two mechanical fields. The original design was based on a primary fuel mixture of 50% coal and 50% fuel oil. As coal is no longer an authorized fuel, the new design will be based on No. 6 fuel oil. The preliminary ESP inlet design conditions include:

Gas Flow Rate: 488,000 acfm (308,830 dscfm)  
Gas Temperature: 250° F to 320° F  
Gas Pressure: -2 to - 4 inches w.c.  
Gas moisture content: 6% to 8% by volume

The redesign leaves the first mechanical field vacant to provide uniform gas flow to the second and third mechanical fields. A new perforated plate will be added to the inlet to the

second mechanical field. The gas passage width will be increased to allow for more durable rigid discharge electrodes that will replace current wire electrodes. New transformer rectifiers will be installed to provide the increased voltage required for the new rigid electrodes. The preliminary design is based on the following critical operating parameters:

Total Collecting Plate Area: 92,711 square feet (based on actual 11 inch gas passage width)  
Treatment length: 21 feet  
Aspect Ratio: 0.57  
Specific Collecting Area (SCA): 190 square feet per 1000 acfm (based on 11 inch gas passage width)  
Gas Velocity: 4.0 feet per second  
Treatment Time: 5.2 seconds

The redesigned ESP is expected to provide emission rates equal to or better than the original design and lower than reported in recent stack tests. Reliability and availability of the ESP should also improve after it is rebuilt. The project is not expected to result in any operational or capacity increases. Because Unit 1 is oil fired and this unit is capable of meeting the applicable particulate matter and opacity limits in Conditions A.5., A.6., A.7., and A.8. without the use of the ESP, the provisions of 40 CFR 64 do not apply [40 CFR 64.2(b)(ii)]. A Durag Model 281 Continuous Emissions Monitor for opacity with a recorder is used for continual observation of stack opacity. Unit 1 began commercial service in 1958.

**To:** Unit No. 1 is a front-fired, fossil fuel steam generator which produces 120 megawatts, electric power. The maximum heat input rate is 1,220 million Btu per hour and the unit fires No. 2 through No. 6 fuel oil, and on-specification used oil. Particulate matter emissions are controlled by a General Electric Services, Inc. Model 1-BAB1.2X37(9)36.0-434-4.3P electrostatic precipitator consisting of five fields in depth. The permit application indicates this ESP was designed to operate when utilizing a coal/oil mixture which is no longer burned by Progress Energy Florida. The permittee was authorized to redesign the existing electrostatic precipitator (ESP) from three mechanical fields to two mechanical fields. The original design was based on a primary fuel mixture of 50% coal and 50% fuel oil. As coal is no longer an authorized fuel, the new design will be based on No. 6 fuel oil. The ESP inlet design conditions include:

Gas Flow Rate: 488,000 acfm (308,830 dscfm)  
Gas Temperature: 250° F to 320° F  
Gas Pressure: -2 to - 4 inches w.c.  
Gas moisture content: 6% to 8% by volume

The redesign leaves the first mechanical field vacant to provide uniform gas flow to the second and third mechanical fields. A new perforated plate will be added to the inlet to the second mechanical field. The gas passage width was increased to allow for more durable rigid discharge electrodes that replaced current wire electrodes. New transformer rectifiers were installed to provide the increased voltage required for the new rigid electrodes. The design is based on the following critical operating parameters:

Total Collecting Plate Area: 92,711 square feet (based on actual 11 inch gas passage width)  
Treatment length: 21 feet  
Aspect Ratio: 0.57  
Specific Collecting Area (SCA): 190 square feet per 1000 acfm (based on 11 inch gas passage width)  
Gas Velocity: 4.0 feet per second  
Treatment Time: 5.2 seconds

The redesigned ESP is expected to provide emission rates equal to or better than the original design and lower than reported in recent stack tests. Because Unit 1 is oil fired and this unit is capable of meeting the applicable particulate matter and opacity limits in Conditions A.5., A.6., A.7., and A.8. without the use of the ESP, the provisions of 40 CFR 64 do not apply [40 CFR 64.2(b)(ii)]. A Durag Model 281 Continuous Emissions Monitor for opacity with a recorder is used for continual observation of stack opacity. Unit 1 began commercial service in 1958.

- 2. Response:** The fuel sulfur limit and sulfur dioxide limit apply to the specified fuels, only. The other fuels allowed are not limited by either sulfur content or sulfur dioxide emissions.
- 3. Response:** Since the revision did not change any of the emissions reporting requirements, the reporting requirements established by the initial Title V permit will remain.
- 4. Response:** The Operation and Maintenance Plan dated August 2003 meets all of the current rule requirements. If Pinellas County wishes additional items included in the plan, the plan would need to be revised and resubmitted to the Department by the permittee for approval.
- 5. Response:** As mentioned in the comment, the use of Method 19 is allowed by the rule. This test method must remain, as long as it is allowed by the rule.
- 6. Response:** The permit does not require any additional continuous emission monitors beyond those required by the Acid Rain program. The Acid Rain program specifies the operating, maintenance and reporting requirements. This permit, in order to resolve an EPA objection filed on the initial issuance, requires that the Acid Rain continuous opacity monitor data be used for purposes of periodic monitoring.

### **III. Conclusion.**

The permitting authority hereby issues the PROPOSED Permit, with any changes noted above.

## STATEMENT OF BASIS

Progress Energy Florida  
P. L. Bartow Plant  
Facility ID No.: 1030011  
Pinellas County

Title V Air Operation Permit Revision  
PROPOSED Permit Project No.: 1030011-008-AV  
Revision to Title V Air Operation Permit No.: 1030011-002-AV

The initial Title V Air Operation Permit, No. 1030011-002-AV, was effective on January 1, 2000. This Title V Air Operation Permit 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 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.

The subject of this permit revision is to incorporate the terms and conditions of air construction permit, No. 1030011-007-AC, for an enhancement to the Unit 1 electrostatic precipitator and to incorporate revisions to Unit 1's Operation and Maintenance Plan.

The following changes are made:

**a. Section III. Subsection A. Description**

**FROM:**

Unit No. 1 is a front-fired, fossil fuel steam generator which produces 120 megawatts, electric power. The maximum heat input rate is 1,220 million Btu per hour and the unit fires No. 2 through No. 6 fuel oil, and on-specification used oil. Particulate matter emissions are controlled by a General Electric Services, Inc. Model 1-BAB1.2X37(9)36.0-434-4.3P electrostatic precipitator consisting of five fields in depth. The permit application indicates this ESP was designed to operate when utilizing a coal/oil mixture which is no longer burned by FPC. Because Unit 1 is oil fired and this unit is capable of meeting the applicable particulate matter and opacity limits in Conditions A.5., A.6., A.7., and A.8. without the use of the ESP, the provisions of 40 CFR 64 do not apply [40 CFR 64.2(b)(ii)]. A Durag Model 281 Continuous Emissions Monitor for opacity with a recorder is used for continual observation of stack opacity. Unit 1 began commercial service in 1958.

**TO:**

Unit No. 1 is a front-fired, fossil fuel steam generator which produces 120 megawatts, electric power. The maximum heat input rate is 1,220 million Btu per hour and the unit fires No. 2 through No. 6 fuel oil, and on-specification used oil. Particulate matter emissions are controlled by a General Electric Services, Inc. Model 1-BAB1.2X37(9)36.0-434-4.3P electrostatic precipitator consisting of five fields in depth. The permit application indicates this ESP was designed to operate when utilizing a coal/oil mixture which is no longer burned by Progress Energy Florida. The permittee was authorized to redesign the existing electrostatic precipitator (ESP) from three mechanical fields to two mechanical fields. The original design was based on a primary fuel mixture of 50% coal and 50% fuel oil. As coal is no longer an authorized fuel, the new design will be based on No. 6 fuel oil. The ESP inlet design conditions include:

Gas Flow Rate: 488,000 acfm (308,830 dscfm)  
Gas Temperature: 250° F to 320° F  
Gas Pressure: -2 to -4 inches w.c.

Gas moisture content: 6% to 8% by volume

The redesign leaves the first mechanical field vacant to provide uniform gas flow to the second and third mechanical fields. A new perforated plate will be added to the inlet to the second mechanical field. The gas passage width was increased to allow for more durable rigid discharge electrodes that replaced current wire electrodes. New transformer rectifiers were installed to provide the increased voltage required for the new rigid electrodes. The design is based on the following critical operating parameters:

Total Collecting Plate Area: 92,711 square feet (based on actual 11 inch gas passage width)  
Treatment length: 21 feet  
Aspect Ratio: 0.57  
Specific Collecting Area (SCA): 190 square feet per 1000 acfm (based on 11 inch gas passage width)  
Gas Velocity: 4.0 feet per second  
Treatment Time: 5.2 seconds

The redesigned ESP is expected to provide emission rates equal to or better than the original design and lower than reported in recent stack tests. Because Unit 1 is oil fired and this unit is capable of meeting the applicable particulate matter and opacity limits in Conditions A.5., A.6., A.7., and A.8. without the use of the ESP, the provisions of 40 CFR 64 do not apply [40 CFR 64.2(b)(ii)]. A Durag Model 281 Continuous Emissions Monitor for opacity with a recorder is used for continual observation of stack opacity. Unit 1 began commercial service in 1958.

b. No A.40.

FROM:

**A.40. E.U. ID No. -001 Operation and Maintenance Plan.** The General Electric Services, Inc. Model 1-BAB1.2X37(9)36.0-434-4.3P electrostatic precipitator shall be operated and maintained in accordance with the Operation and Maintenance (O&M) Plan, dated 10/04/93 and on file with the Department. The O&M Plan documentation logs shall be maintained for a minimum of five years and made available for inspection upon request. At a minimum, the O&M Plan shall include:

1. The operating parameters of the control device
2. A timetable of routine weekly, bi-weekly, or monthly observations of the pollution control device.
3. A list of the type and quantity of the required spare parts which are stored on the premises for the pollution control device.
4. A record log which shows at a minimum when maintenance was performed, what maintenance was performed, and by whom.

[Rule 62-296.700(6), F.A.C.; and Pinellas County Code, Section 58-128]

TO:

**A.40. E.U. ID No. -001 Operation and Maintenance Plan.** The rebuilt General Electric Services, Inc. Model 1-BAB1.2X37(9)36.0-434-4.3P electrostatic precipitator shall be operated and maintained in accordance with the PROGRESS ENERGY FLORIDA BARTOW PLANT UNIT #1 ELECTROSTATIC PRECIPITATOR OPERATION AND MAINTENANCE PLAN dated August 2003 and on file with the Department. The O&M Plan documentation logs shall be maintained for a minimum of five years and made available for inspection upon request. At a minimum, the O&M Plan shall include:

1. The operating parameters of the control device.
2. A timetable of routine weekly, bi-weekly, or monthly observations of the pollution control device.
3. A list of the type and quantity of the required spare parts which are stored on the premises for the pollution control device.
4. A record log which shows at a minimum when maintenance was performed, what maintenance was performed, and by whom.



[Rule 62-296.700(6), F.A.C.; and Pinellas County Code, Section 58-128]

c. **Placard Page Referenced attachments made a part of this permit:**

ADD:

PROGRESS ENERGY FLORIDA BARTOW PLANT UNIT #1 ELECTROSTATIC  
PRECIPITATOR OPERATION AND MAINTENANCE PLAN dated August 2003

d. **No A.41.**

ADD:

**A.41. PSD Applicability Report:** The permittee shall maintain information demonstrating that the project did not result in any significant net emissions increase of particulate matter, which is defined in Rule 62-212.400(2)(e), F.A.C., as follows:

*Net Emissions Increase. A modification to a facility results in a net emissions increase when, for a pollutant regulated under the Act, the sum of all of the contemporaneous creditable increases and decreases in the actual emissions of the facility, including the increase in emissions of the modification itself and any increases and decreases in quantifiable fugitive emissions, is greater than zero.*

*Significant Net Emissions Increase. A significant net emissions increase of a pollutant regulated under the Act is a net emissions increase equal to or greater than the applicable significant emission rate listed in Table 212.400-2, Regulated Air Pollutants – Significant Emission Rates.*

The permittee shall submit an annual report to the Department of such information for a period of 5 years representative of normal post-change operations of the unit (within the period not longer than 10 years following the change). For an existing electric utility steam-generating unit, actual emissions of the unit following a physical or operational change shall equal the representative actual annual emissions of the unit following the physical or operational change. The following definition of “representative actual annual emissions” found in 40 CFR 52.21(b)(33) is adopted and incorporated by reference in Rule 62-204.800, F.A.C.

*Representative actual annual emissions means the average rate, in tons per year, at which the source is projected to emit a pollutant for the two-year period after a physical change or change in the method of operation of a unit, (or a different consecutive two-year period within 10 years after that change, where the Administrator determines that such period is more representative of normal source operations), considering the effect any such change will have on increasing or decreasing the hourly emissions rate and on projected capacity utilization. In projecting future emissions the Administrator shall:*

*(i) Consider all relevant information, including but not limited to, historical operational data, the company's own representations, filings with the State or Federal regulatory authorities, and compliance plans under title IV of the Clean Air Act; and*

*(ii) Exclude, in calculating any increase in emissions that results from the particular physical change or change in the method of operation at an electric utility steam generating unit, that portion of the unit's emissions following the change that could have been accommodated during the representative baseline period and is attributable to an increase in projected capacity utilization at the unit that is unrelated to the particular change, including any increased utilization due to the rate of electricity demand growth for the utility system as a whole.*

Each required annual report shall be submitted to the Department prior to March 1<sup>st</sup> and shall quantify operations for the previous calendar year(s).

[1030011-007-AC]

CAM does not apply.

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

Based on the initial Title V Air Operation Permit application received June 14, 1997, this facility is a major source of hazardous air pollutants (HAPs).

Progress Energy Florida  
P. L. Bartow Plant  
**Facility ID No.:** 1030011  
Pinellas County

## **Title V Air Operation Permit Revision**

**PROPOSED Permit No.:** 1030011-008-AV  
**Revision to Title V Air Operation Permit No.:** 1030011-002-AV

Permitting Authority:

State of Florida  
Department of Environmental Protection  
Division of Air Resources Management  
Bureau of Air Regulation

Mail Station #5505  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400  
Telephone: 850/488-0114  
Fax: 850/922-6979

Compliance Authority:

Pinellas County Department of Environmental Management  
Air Quality Division  
300 South Garden Avenue  
Clearwater, Florida 34616  
Telephone: 813/464-4422  
Fax: 813/464-4420

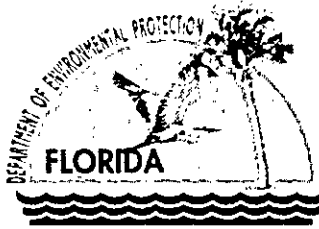
# Title V Air Operation Permit Revision

**PROPOSED Permit No.:** 1030011-008-AV

**Revision to Title V Air Operation Permit No.:** 1030011-002-AV

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Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

**Permittee:**

Progress Energy Florida  
100 Central Avenue, Mail Code BB1A  
St. Petersburg, Florida 33701

**PROPOSED Permit No.:** 1030011-008-AV

**Facility ID No.:** 1030011

**SIC No(s).:** 49, 4911

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

This permit revision is being issued for the purpose of incorporating the terms and conditions of air construction permit, No. 1030011-007-AC, for an enhancement to the Unit 1 electrostatic precipitator and incorporating revisions to Unit 1's Operation and Maintenance Plan located at the existing P. L. Bartow Plant. This facility is located at 1601 Weedon Island Drive, St. Petersburg, Pinellas County; UTM Coordinates: Zone 17, 342.4 km East and 3,082.6 km North; Latitude: 27° 52' 10" North and Longitude: 82° 35' 59" West.

This Title V Air Operation Permit 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 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-4, TITLE V CONDITIONS version dated 02/12/02

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

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

Alternate Sampling Procedure: ASP Number 97-B-01

OGC Order No. 86-1577

OGC Order No. 87-1261

OGC Order No. 96-A-01

PROGRESS ENERGY FLORIDA BARTOW PLANT UNIT #1 ELECTROSTATIC PRECIPITATOR  
OPERATION AND MAINTENANCE PLAN dated August 2003

**Initial Effective Date:** January 1, 2000

**Revision Effective Date:** (ARMS Day 55)

**Renewal Application Due Date:** July 5, 2004

**Expiration Date:** December 31, 2004

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Michael G. Cooke, Director  
Division of Air Resource  
Management

MGC/sms/es

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**Section I. Facility Information.**

**Subsection A. Facility Description.**

This facility consists of three fossil fuel fired steam generators subject to Phase II Acid Rain, a pipeline heating boiler, four gas turbine peaking units and relocatable diesel generators that can be located at various Progress Energy Florida power plants, as needed.

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

Based on the initial Title V permit application received June 14, 1997, this facility is a major source of hazardous air pollutants (HAPs).

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

Based on the initial Title V permit application received June 14, 1997, this facility is a major source of hazardous air pollutants (HAPs).

Unregulated Emissions Units and/or Activities

**E.U. ID**

| <b><u>No.</u></b> | <b><u>Brief Description of Emissions Units and/or Activity</u></b>   |
|-------------------|--|
| -010              | 3 Diesel Fuel-Fired Internal Combustion Engines – drive Yard Waste Trommel Mulching Machine, Resource Recovery Facility Emergency Diesel Fire Pump, and Lift Station Emergency Diesel Fire Pump which are not subject to the Acid Rain Program and have a total fuel consumption, in the aggregate, of 32,000 gallons per year or less of diesel fuel. |
| -011              | 3 Diesel Fuel-Fired Generators - at Chlorine Treatment Area, Scale Station, and Maintenance Service Building which are not subject to the Acid Rain Program and have a total fuel consumption, in the aggregate, of 32,000 gallons per year or less of diesel fuel.  |
| -012              | 2 Gasoline-Fired Generators - at Mosquito Control Area and Maintenance Service Building which are not subject to the Acid Rain Program and have a total fuel consumption, in the aggregate, of 4,000 gallons per year or less of gasoline.   |

*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

Statement of Basis

These documents are on file with the permitting authority:

Initial Title V Air Operation Permit effective January 1, 2000

Application for a Title V Air Operation Permit Revision received May 2, 2003

Additional Information Request dated June 11, 2003

Additional Information Response received August 20, 2003

## **Section II. Facility-wide Conditions.**

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

1. APPENDIX TV-4, TITLE V CONDITIONS, is a part of this permit.  
{Permitting note: APPENDIX TV-4, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided 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.  
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]
4. **Prevention of Accidental Releases (Section 112(r) of CAA).**
  - a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:  

RMP Reporting Center  
Post Office Box 3346  
Merrifield, VA 22116-3346  
Telephone: 703/816-4434
- and,
- b. The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.  
[40 CFR 68]
5. **Unregulated Emissions Units and/or Activities.** 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. **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.]
7. **General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions.** The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic



compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.

**“Nothing was deemed necessary and ordered at this time.”**

[Rule 62-296.320(1)(a), F.A.C.]

8. Emissions of Unconfined Particulate Matter. Pursuant to Rules 62-296.320(4)(c)1., 3. & 4., F.A.C., reasonable precautions to prevent emissions of unconfined particulate matter at this facility include the following requirements (see Condition 57. of APPENDIX TV-4, TITLE V CONDITIONS):

The following requirements are “not federally enforceable”:

- a. Maintenance of paved areas as needed;
- b. Regular mowing of grass and care of vegetation; and,
- c. Limiting access to plant property by unnecessary vehicles.

[Rule 62-296.320(4)(c)2., F.A.C.; and, proposed by the 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. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted to the Department and EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C.

[Rules 62-213.440(3) and 62-213.900, F.A.C.]

{Permitting Note: This condition implements the requirements of Rules 62-213.440(3)(a)2. & 3., F.A.C. (see Condition 51. of APPENDIX TV-4, TITLE V CONDITIONS)}

11. The permittee shall submit all compliance related notifications and reports required of this permit to the Pinellas County Department of Environmental Management (PCDEM) office.

Pinellas County Department of Environmental Management  
Air Quality Division  
300 South Garden Avenue  
Clearwater, Florida 34616  
Telephone: 727/464-4422  
Fax: 727/464-4420

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

United States Environmental Protection Agency  
Region 4  
Air, Pesticides & Toxics Management Division  
Air and EPCRA Enforcement Branch  
Air Enforcement Section  
61 Forsyth Street  
Atlanta, Georgia 30303-8960  
Telephone: 404/562-9155; Fax: 404/562-9163

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

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

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

| <u>E.U. ID No.</u> | <u>Brief Description</u>  |
|--------------------|---|
| -001               | No. 1 Unit, Fossil Fuel Fired Steam Generator with Electrostatic Precipitator |
| -002               | No. 2 Unit, Fossil Fuel Fired Steam Generator                                 |
| -003               | No. 3 Unit, Fossil Fuel Fired Steam Generator                                 |

Unit No. 1 is a front-fired, fossil fuel steam generator which produces 120 megawatts, electric power. The maximum heat input rate is 1,220 million Btu per hour and the unit fires No. 2 through No. 6 fuel oil, and on-specification used oil. Particulate matter emissions are controlled by a General Electric Services, Inc. Model 1-BAB1.2X37(9)36.0-434-4.3P electrostatic precipitator consisting of five fields in depth. The permit application indicates this ESP was designed to operate when utilizing a coal/oil mixture which is no longer burned by Progress Energy Florida. The permittee was authorized to redesign the existing electrostatic precipitator (ESP) from three mechanical fields to two mechanical fields. The original design was based on a primary fuel mixture of 50% coal and 50% fuel oil. As coal is no longer an authorized fuel, the new design will be based on No. 6 fuel oil. The ESP inlet design conditions include:

- Gas Flow Rate: 488,000 acfm (308,830 dscfm)
- Gas Temperature: 250° F to 320° F
- Gas Pressure: -2 to - 4 inches w.c.
- Gas moisture content: 6% to 8% by volume

The redesign leaves the first mechanical field vacant to provide uniform gas flow to the second and third mechanical fields. A new perforated plate will be added to the inlet to the second mechanical field. The gas passage width was increased to allow for more durable rigid discharge electrodes that replaced current wire electrodes. New transformer rectifiers were installed to provide the increased voltage required for the new rigid electrodes. The design is based on the following critical operating parameters:

- Total Collecting Plate Area: 92,711 square feet (based on actual 11 inch gas passage width)
- Treatment length: 21 feet
- Aspect Ratio: 0.57
- Specific Collecting Area (SCA): 190 square feet per 1000 acfm (based on 11 inch gas passage width)
- Gas Velocity: 4.0 feet per second
- Treatment Time: 5.2 seconds

The redesigned ESP is expected to provide emission rates equal to or better than the original design and lower than reported in recent stack tests. Because Unit 1 is oil fired and this unit is capable of meeting the applicable particulate matter and opacity limits in Conditions A.5., A.6., A.7., and A.8. without the use of the ESP, the provisions of 40 CFR 64 do not apply [40 CFR 64.2(b)(ii)]. A Durag Model 281 Continuous Emissions Monitor for opacity with a recorder is used for continual observation of stack opacity. Unit 1 began commercial service in 1958.

Unit No. 2 is a tangential-fired fossil fuel fired steam generator which produces 120 megawatts, electric power. The maximum heat input rate is 1,317 million Btu per hour and the unit fires No. 2 through No. 6 fuel oil, on-specification used oil, and propane. Emissions from Unit No. 2 are uncontrolled. Unit 2 began commercial service in 1961.

Unit No. 3 is a tangential-fired fossil fuel fired steam generator which produces 225 megawatts, electric power. The maximum heat input rate is 2,211 million Btu per hour and the unit fires No. 2 through No. 6 fuel oil, on-specification used oil, natural gas, and propane. Emissions from Unit No. 3 are uncontrolled. Unit 3 began commercial service in 1963.

{Permitting note(s): The emissions units are regulated under Acid Rain, Phase II; Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with more than 250 million Btu per Hour Heat Input; Rule 62-296.700, F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter; and, Rule 62-296.702, F.A.C., Fossil Fuel Steam Generators.}

**The following specific conditions apply to the emissions unit(s) listed above:**

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

**A.1. Permitted Capacity.** The maximum operation heat input rates are as follows:

| <u>E.U. ID No.</u> | <u>MMBtu/hr Heat Input</u> | <u>Fuel</u>   |
|--------------------|----------------------------|---|
| -001               | 1,220                      | new No. 2 through 6 fuel oil  |
|                    | 1,220                      | On-specification used oil   |
| -002               | 1,317                      | new No. 2 through 6 fuel oil  |
|                    | 1,317                      | On-specification used oil   |
| -003               | 2,211                      | new No. 2 through 6 fuel oil  |
|                    | 2,266                      | Natural gas   |
|                    | 2,211                      | On-specification used oil   |
|                    | 2,266                      | Natural gas and new No. 6 fuel oil and/or on-specification used oil with a maximum of 2,211 MMBtu/hr from the new No. 6 fuel oil and/or on-specification used oil |

[Rules 62-4.160(2), 62-210.200(PTE), 62-296.405 and 62-296.702, F.A.C.]

{Permitting note: 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 to 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. Regular record keeping is not required for heat input. Instead the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of the process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.}

**A.2. Emissions Unit Operating Rate Limitation After Testing.** See specific condition **A.24.**  
[Rule 62-297.310(2), F.A.C.]

**A.3. Methods of Operation. Fuels.** The only fuels allowed to be burned are:

| <u>E.U. ID No.</u> | <u>Fuel</u>   |
|--------------------|---|
| -001               | new No. 2 through 6 fuel<br>oil<br>On-specification used oil                                      |
| -002               | new No. 2 through 6 fuel<br>oil<br>On-specification used oil                                      |
| -003               | Propane<br>new No. 2 through 6 fuel<br>oil<br>Natural gas<br>On-specification used oil<br>Propane |

Each emissions unit may burn the allowed fuels either alone or in any combination. On-Specification used oil containing any quantifiable levels of PCBs can only be fired when the emissions unit is at normal operating temperatures.

[Rule 62-213.410, F.A.C.; and, 40 CFR 761.20(e)(3)]

{Permitting Note: 40 CFR 761.20, dated March 18, 1996, defines "quantifiable level" of PCBs as greater than or equal to 2 parts per million.}

**A.4. Hours of Operation.** These emissions units may operate continuously, i.e., 8,760 hours/year.

[Rule 62-210.200(PTE), F.A.C.]

### **Emission Limitations and Standards**

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

{Permitting Note: Unless otherwise specified, the averaging times for specific conditions **A.5.-A.9.** are based on the specified averaging time of the applicable test method.}

**A.5. Visible Emissions.** Visible emissions shall not exceed 40 percent opacity.

[Rules 62-296.405(1)(a) and 62-296.702(2)(b), F.A.C.; and, OGC Order Nos. 86-1577, 87-1261, & 96-A-01]

**A.6. Visible Emissions - Soot Blowing and Load Change.** Visible emissions resulting from boiler cleaning (soot blowing) and load change shall be permitted provided the duration of such excess emissions shall not exceed 3 hours in any 24-hour period and visible emissions shall not

exceed 60 percent opacity, and providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of the excess emissions shall be minimized.

A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.

Visible emissions above 60 percent opacity shall be allowed for not more than 4; six (6) - minute periods, during the 3-hour period of excess emissions allowed under this subparagraph, for boiler cleaning and load changes, at units which have installed and are operating, or have committed to install or operate, continuous opacity monitors.

Particulate matter emissions shall not exceed an average of 0.3 lb. per million Btu heat input during the 3-hour period of excess emissions allowed by this subparagraph.

[Rules 62-210.700(3) and 62-296.702(2)(b), F.A.C.]

**A.7. Particulate Matter.** Particulate matter emissions during steady state operations shall not exceed the following, as measured by applicable compliance methods (see specific condition **A.20.**):

| <u>E.U. ID No.</u> | <u>lb/MMBtu heat input</u> | <u>lb/ hr</u> | <u>Tons per Year</u> |
|--------------------|----------------------------|---------------|----------------------|
| -001               | 0.1                        | 122.0         | 534.4                |
| -002               | 0.1                        | 131.7         | 576.9                |
| -003               | 0.1                        | 221.1         | 968.6                |

[Rules 62-296.405(1)(b), 62-296.700(4)(b) and 62-296.702(2)(a), F.A.C.]

**A.8. Particulate Matter - Soot Blowing and Load Change.** Particulate matter emissions shall not exceed an average of the following during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.

| <u>E.U. ID No.</u> | <u>lb/MMBtu heat input</u> | <u>lb/ hr</u> |
|--------------------|----------------------------|---------------|
| -001               | 0.3                        | 366.0         |
| -002               | 0.3                        | 395.1         |
| -003               | 0.3                        | 663.3         |

[Rules 62-210.700(3) and 62-296.700(4)(b), F.A.C.]

**A.9. Sulfur Dioxide.** When burning liquid fuel, sulfur dioxide emissions shall not exceed 2.75 pounds per million Btu heat input, as measured by applicable compliance methods.

[Rule 62-296.405(1)(c)1.j., F.A.C.]

**A.10. Sulfur Dioxide - Sulfur Content.** The new No. 6 fuel oil sulfur content shall not exceed 2.5 percent, by weight. The sulfur content of the on-specification used oil shall not exceed 2.5 percent by weight. See specific condition **A.22.**

[Rule 62-296.405(1)(e)3., F.A.C.; and, AO 52-216412, AO 52-216413 & AO 52-233149]

**A.11. "On-Specification" Used Oil.** Only "on-specification" used oil shall be fired in these units. The quantity of on-specification used oil fired in emissions units -001, -002 and -003 shall

not exceed a total of 14.85 million gallons per consecutive 12-month period and 2.475 million gallons per month. "On-specification" used oil is defined as used oil that meets the 40 CFR 279 (Standards for the Management of Used Oil) specifications listed below. Used oil that does not meet all of the following specifications is considered "off-specification" oil and shall not be fired.

| <u>CONSTITUENT / PROPERTY</u> * | <u>ALLOWABLE LEVEL</u> |
|---------------------------------|------------------------|
| Arsenic                         | 5 ppm maximum          |
| Cadmium                         | 2 ppm maximum          |
| Chromium                        | 10 ppm maximum         |
| Lead                            | 100 ppm maximum        |
| Total Halogens                  | 1000 ppm maximum       |
| Flash Point                     | 100°F minimum          |
| PCBs                            | less than 50 ppm**     |

\* As determined by approved methods specified in EPA Publication SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods).

\*\* Used oil shall not be blended to meet this requirement.

[40 CFR 279.11; 40 CFR 761.20; and, AO 52-216412, AO 52-216413 & AO 52-233149]

**A.12. "On-Specification" Used Oil.** Before accepting from each marketer the first shipment of on-specification used oil with a PCB concentration above the detectable level, the permittee shall provide each marketer with a one-time written and signed notice certifying that the permittee will burn the used oil in a qualified combustion device. The notice must state that EPA or a RCRA-delegated state agency has been given a description of the used oil management activities at the facility and that an industrial boiler or furnace will be used to burn the used oil with PCB concentrations above the detectable level. The description of the used oil management activities shall be submitted to the Administrator, Hazardous Waste Regulation Section, Florida Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

[40 CFR 279.61 and 40 CFR 761.20(e)(3)(ii)]

**A.13. "On-Specification" Used Oil.** Each shipment or on-site generated batch of used oil shall be sampled and analyzed for the constituents listed in specific condition A.11. A claim that the used oil does not contain quantifiable levels of PCBs must be documented by analysis or other information. The first person making the claim that the used oil does not contain PCBs is responsible for furnishing the documentation. The documentation can be tests, personal or special knowledge of the source and composition of the used oil, or a certification from the person generating the used oil claiming that the used oil contains no detectable PCBs.

[40 CFR 761.20(e)(2); and, Rule 62-4.070(3), F.A.C.]

### **Excess Emissions**

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

**A.14.** Excess emissions resulting from 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.15.** Excess emissions resulting from startup or shutdown shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized.  
[Rule 62-210.700(2), F.A.C.]

**A.16.** 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.17. Sulfur Dioxide.** **The permittee elected to demonstrate compliance by accepting a liquid fuel sulfur limit that will be verified with a fuel analysis provided by the vendor or the permittee upon each fuel delivery.** This protocol is allowed because the emissions unit does not have an operating flue gas desulfurization device. See specific conditions **A.10., A.21. and A.22.**  
[Rule 62-296.405(1)(f)1.b., F.A.C.]

**A.18. 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: The attached 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.19. Visible emissions.** The test method for visible emissions shall be:

- a. E.U. ID Nos. -001, -002 and -003 EPA Method 9, incorporated in Chapter 62-297, F.A.C.
- b. E.U. ID No. -001 Continuous opacity monitor.  
[Rule 62-296.702(3)(a), F.A.C.; and, AO 52-233149]

**A.20. Particulate Matter.** The test methods for particulate emissions shall be EPA Methods 17, 5, 5B, or 5F, incorporated by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Method 5 may be used with filter temperature no more than 320 degrees Fahrenheit. For EPA Method 17, stack temperature shall be less than 375 degrees Fahrenheit. The owner or operator may use EPA Method 5 to demonstrate compliance. EPA Method 3 or 3A with Orsat analysis shall be used when the oxygen based F-factor, computed according to EPA Method 19, is used in lieu of heat input. Acetone wash shall be used with EPA Method 5 or 17.  
[Rules 62-296.405(1)(e)2., 62-297.401 and 62-296.702(3)(b), F.A.C.]

**A.21. Sulfur Dioxide.** The test methods for sulfur dioxide emissions shall be EPA Methods 6, 6A, 6B, or 6C, incorporated by reference in Chapter 62-297, F.A.C. Fuel sampling and analysis may be used as an alternate sampling procedure if such a procedure is incorporated into the operation permit for the emissions unit. If the emissions unit obtains an alternate procedure under the provisions of Rule 62-297.620, F.A.C., the procedure shall become a condition of the emissions unit's permit. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that exceedances of the sulfur dioxide emissions limiting standard are occurring. Results of an approved fuel sampling and analysis program shall have the same effect as EPA Method 6 test results for purposes of demonstrating compliance or noncompliance with sulfur dioxide standards. **The permittee may use the EPA test methods, referenced above, to demonstrate compliance; however, as an alternate sampling procedure authorized by permit, the permittee elected to demonstrate compliance by accepting a liquid fuel sulfur limit that will be verified with a fuel analysis provided by the vendor or the permittee upon each fuel delivery.** See specific conditions **A.10. and A.22.**  
[Rules 62-213.440, 62-296.405(1)(e)3. and 62-297.401, F.A.C.; and, AO 52-216412, AO 52-216413 & AO 52-233149]

**A.22.** The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition.  
[Rules 62-213.440, 62-296.405(1)(e)3., 62-296.405(1)(f)1.b. and 62-297.440, F.A.C.]

**A.23. Required Number of Test Runs.** For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate

determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

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

**A.24. Operating Rate During Testing.** Testing of emissions shall be conducted while firing new No. 6 fuel oil or new No. 6 fuel oil/on-specification used oil with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. 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.

[Rules 62-297.310(2) & (2)(b), F.A.C.; and, AO 52-216412, AO 52-216413 & AO 52-233149]

**A.25. 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 separate test runs unless otherwise specified in a particular test method or applicable rule.

[Rule 62-297.310(3), F.A.C.]

**A.26. Applicable Test Procedures.**

(a) **Required Sampling Time.**

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

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

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. **See specific condition A.20.**

(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 as part of this permit.

(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.]

**A.27. Required Stack Sampling Facilities**. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.  
[Rule 62-297.310(6), F.A.C.]

**A.28. 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.

2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid for more than 400 hours other than during startup.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to 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.

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

a. Visible emissions, if there is an applicable standard;

b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and

c. Each NESHAP pollutant, if there is an applicable emission standard.

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid fuel, other than during startup, for a total of more than 400 hours.

9. The owner or operator shall notify the PCDEM, 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) Special Compliance Tests. When the PCDEM, 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 PCDEM.

(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]

**A.29.** By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning:

- a. only gaseous fuel(s); or
- b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or
- c. only liquid fuel(s) for less than 400 hours per year.

[Rule 62-297.310(7)(a)4., F.A.C.]

**A.30.** Annual and permit renewal compliance testing for particulate matter emissions is not required for these emissions units while burning:

- a. only gaseous fuel(s); or
- b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or
- c. only liquid fuel(s) for less than 400 hours per year.

[Rules 62-297.310(7)(a)3. & 5., F.A.C.; and, ASP Number 97-B-01.]

### **Record keeping and Reporting Requirements**

**A.31.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the PCDEM 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 PCDEM.

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

**A.32.** Submit to the PCDEM a written report of emissions in excess of emission limiting standards as set forth in Rule 62-296.405(1), F.A.C., for each calendar quarter. The nature and cause of the excess emissions shall be explained. This report does not relieve the owner or

operator of the legal liability for violations. All recorded data shall be maintained on file by the Source for a period of five years.

[Rules 62-213.440 and 62-296.405(1)(g), F.A.C.]

**A.33. Test Reports.**

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the PCDEM on the results of each such test.
- (b) The required test report shall be filed with the PCDEM 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 PCDEM 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.]

**A.34. Not federally enforceable. Special Recordkeeping Requirements:** The owner or operator shall obtain, make, and keep the following records related to the use of used oil:

- (1) The gallons of on-specification used oil burned each month. (This record shall be completed no later than the fifteenth day of the succeeding month.)
- (2) The total gallons of on-specification used oil burned in the preceding calendar year.
- (3) The name and address of all marketers delivering used oil to the facility.
- (4) Copies of the marketer certifications, if obtained, and any supporting information.
- (5) Documentation that the used oil contains less than 2 ppm PCBs, if claimed, including the name and address of the person making the claim.
- (6) Results of the analyses required above.
- (7) A copy of the notice to EPA and a copy of the one-time written notice provided to each marketer.

These records shall be recorded in a permanent form suitable for inspection by the PCDEM upon request, and shall be retained for at least a five year period.

[40 CFR 279.61; 40 CFR 761.20(e); and, Rule 62-213.440(1)(b)2.b., F.A.C.]

**A.35.** The permittee shall include in the "Annual Operating Report for Air Pollutant Emitting Facility" a statement of the total quantity of on-specification used oil fired during the calendar year.

[Rule 62-4.070(3), F.A.C.; and, AO 52-216412, AO 52-216413 & AO 52-233149]

**A.36.** Compliance with the oil sulfur content and the sulfur dioxide emissions limitations of specific conditions **A.9.** and **A.10.** shall be documented by the permittee through submittal of quarterly reports of the Bartow Plant monthly average fuel oil sulfur content, heat content and the resulting sulfur dioxide emission rate in pounds per million Btu heat input. These quarterly reports shall be submitted to PCDEM within 30 days of the end of each calendar quarter.

[Rule 62-4.070(3), F.A.C.; and, AO 52-216412, AO 52-216413 & AO 52-233149]

**A.37. Not Federally Enforceable.** Submit to the Air Section of PCDEM each calendar year on or before March 1, a completed "Annual Operating Report for Air Pollutant Emitting Facility" form for the preceding calendar year. Until further notice by the Department the permittee shall calculate particulate matter emissions by multiplying the particulate matter stack test results by the hours of operation. Other annual emissions shall be determined by multiplying the annual fuel use by the following emissions factors:

**E.U. ID No. -001**

| Pollutant       | No. 6 fuel oil (lb/1000 gal) |
|-----------------|------------------------------|
| SO <sub>2</sub> | 157(S)                       |
| CO              | 5                            |
| NO <sub>X</sub> | 67                           |
| VOC             | 0.76                         |

**E.U. ID No. -002**

| Pollutant       | No. 6 fuel oil (lb/1000 gal) |
|-----------------|------------------------------|
| SO <sub>2</sub> | 157(S)                       |
| CO              | 5                            |
| NO <sub>X</sub> | 42                           |
| VOC             | 0.76                         |

**E.U. ID No. -003**

| Pollutant       | No. 6 fuel oil (lb/1000 gal) | Natural Gas (lb/MMcf) |
|-----------------|------------------------------|-----------------------|
| SO <sub>2</sub> | 157(S)                       | 0.6                   |
| CO              | 5                            | 5                     |
| NO <sub>X</sub> | 42                           | 550                   |
| VOC             | 0.76                         | 1.4                   |

[AO 52-216412, AO 52-216413 & AO 52-233149]

**A.38. COMS for Periodic Monitoring.** The owner or operator is required to install continuous opacity monitoring systems (COMS) pursuant to 40 CFR Part 75. The owner or operator shall maintain and operate COMS and shall make and maintain records of opacity measured by the COMS, for purposes of periodic monitoring.  
[Rule 62-213.440, F.A.C.]

**Miscellaneous Requirements**

**A.39. Process Parameters.**

|                   | E.U. ID No. -001   | E.U. ID No. -002   | E.U. ID No. -003   |
|-------------------|--|--|--|
| Heat Input Rate   | 1,220 MMBtu/hr<br>(maximum)  | 1,317 MMBtu/hr<br>(maximum)  | 2,266 MMBtu/hr<br>(maximum)  |
| Fuel              | New No. 6 fuel oil with a sulfur content of 2.5%, by weight (maximum) and on-specification used oil with a sulfur content of 2.5%, by weight (maximum) | New No. 6 fuel oil with a sulfur content of 2.5%, by weight (maximum) and on-specification used oil with a sulfur content of 2.5%, by weight (maximum) | New No. 6 fuel oil with a sulfur content of 2.5%, by weight (maximum) and on-specification used oil with a sulfur content of 2.5%, by weight (maximum) (also natural gas when available) |
| Fuel Firing Rate  | 7,854 gal/hr (187 BBL/hr) new No. 6 fuel oil and/or on-specification used oil (maximum)  | 8,778 gal/hr (209 BBL/hr) new No. 6 fuel oil and/or on-specification used oil (maximum)  | 14,742 gal/hr (351 BBL/hr) new No. 6 fuel oil and/or on-specification used oil, 2.2 MMcf/hr natural gas (maximum)  |
| Ash Content       | As sampled   | As sampled   | As sampled   |
| Steam Temperature | 1,000°F  | 1,000°F  | 1,000°F  |
| Steam Pressure    | 1,850 psi  | 1,850 psi  | 2,050 psi  |

|                     |                  |                           |                           |
|---------------------|------------------|---------------------------|---------------------------|
| Steam Flow Rate     | 900,000 lb/hr    | 919,600 lb/hr             | 1,423,500 lb/hr           |
| Stack Height        | 300 ft           | 300 ft                    | 300 ft                    |
| Boiler Manufacturer | Babcock & Wilcox | Combustion<br>Engineering | Combustion<br>Engineering |
| Burner Arrangement  | Front fired      | Tangential fired          | Tangential fired          |

Inspection and Maintenance Program.

(a) Scheduled during major outages: Boilers, controls, auxiliaries, burners and duct work are to be inspected and repaired as necessary. All parts are to be inspected, cleaned and replaced as necessary.

(b) Scheduled during non-peak load periods in Spring and Fall: This schedule is affected by forced outage requirements.

(c) The following operating parameters are to be continuously monitored and maintained at appropriate levels to produce efficient fuel combustion:

1. fuel flow rate
2. fuel temperature
3. fuel pressure
4. air flow rate
5. steam flow rate
6. steam temperature
7. steam pressure

(d) Plant operators are to monitor, adjust and record the following operating parameters at least once per day to assure efficient plant operation:

1. temperatures (superheat, reheat, and fuel)
2. flows (steam, feed water, and fuel)
3. unit load

(e) Fuel oil quality is to be checked prior to delivery and a daily sample taken each day the facility is operated for a monthly composite analysis. Fuel oil analysis (by ASTM Methods) is to be analyzed for the following:

1. heat content (Btu/gal)
2. sulfur content (%S by weight)
3. density
4. API gravity

Records of inspection, maintenance, and performance parameters shall be retained a minimum of five years and shall be made available for inspection upon request.

[Rule 62-296.700 (6)(d), F.A.C.; and, AO 52-216412, AO 52-216413 & AO 52-233149]

**A.40. E.U. ID No. -001 Operation and Maintenance Plan.** The rebuilt General Electric Services, Inc. Model 1-BAB1.2X37(9)36.0-434-4.3P electrostatic precipitator shall be operated and maintained in accordance with the PROGRESS ENERGY FLORIDA BARTOW PLANT UNIT #1 ELECTROSTATIC PRECIPITATOR OPERATION AND MAINTENANCE PLAN dated August 2003 and on file with the Department. The O&M Plan documentation logs shall be maintained for a minimum of five years and made available for inspection upon request. At a minimum, the O&M Plan shall include:

1. The operating parameters of the control device.
2. A timetable of routine weekly, bi-weekly, or monthly observations of the pollution control device.



3. A list of the type and quantity of the required spare parts which are stored on the premises for the pollution control device.
4. A record log which shows at a minimum when maintenance was performed, what maintenance was performed, and by whom.

[Rule 62-296.700(6), F.A.C.; and, Pinellas County Code, Section 58-128]

**A.41. PSD Applicability Report:** The permittee shall maintain information demonstrating that the project did not result in any significant net emissions increase of particulate matter, which is defined in Rule 62-212.400(2)(e), F.A.C., as follows:

*Net Emissions Increase. A modification to a facility results in a net emissions increase when, for a pollutant regulated under the Act, the sum of all of the contemporaneous creditable increases and decreases in the actual emissions of the facility, including the increase in emissions of the modification itself and any increases and decreases in quantifiable fugitive emissions, is greater than zero.*

*Significant Net Emissions Increase. A significant net emissions increase of a pollutant regulated under the Act is a net emissions increase equal to or greater than the applicable significant emission rate listed in Table 212.400-2, Regulated Air Pollutants – Significant Emission Rates.*

The permittee shall submit an annual report to the Department of such information for a period of 5 years representative of normal post-change operations of the unit (within the period not longer than 10 years following the change). For an existing electric utility steam-generating unit, actual emissions of the unit following a physical or operational change shall equal the representative actual annual emissions of the unit following the physical or operational change.

The following definition of “representative actual annual emissions” found in 40 CFR 52.21(b)(33) is adopted and incorporated by reference in Rule 62-204.800, F.A.C.

*Representative actual annual emissions means the average rate, in tons per year, at which the source is projected to emit a pollutant for the two-year period after a physical change or change in the method of operation of a unit, (or a different consecutive two-year period within 10 years after that change, where the Administrator determines that such period is more representative of normal source operations), considering the effect any such change will have on increasing or decreasing the hourly emissions rate and on projected capacity utilization. In projecting future emissions the Administrator shall:*

- (i) *Consider all relevant information, including but not limited to, historical operational data, the company's own representations, filings with the State or Federal regulatory authorities, and compliance plans under title IV of the Clean Air Act; and*
- (ii) *Exclude, in calculating any increase in emissions that results from the particular physical change or change in the method of operation at an electric utility steam generating unit, that portion of the unit's emissions following the change that could have been accommodated during the representative baseline period and is attributable to an increase in projected capacity utilization at the unit that is unrelated to the particular change, including any increased utilization due to the rate of electricity demand growth for the utility system as a whole.*

Each required annual report shall be submitted to the Department prior to March 1<sup>st</sup> and shall quantify operations for the previous calendar year(s).

[1030011-007-AC]

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

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

| <u>E.U. ID No.</u> | <u>Brief Description</u>               |
|--------------------|--|
| -004               | Bartow-Anclote Pipeline Heating Boiler |

The Bartow-Anclote Pipeline Heating Boiler is used to heat fuel oil being transferred from the Bartow Plant to the Anclote Plant. The boiler's maximum heat input rate is 15.5 million Btu per hour firing natural gas, No. 2 fuel oil, or propane. Emissions from the boiler are uncontrolled.

{Permitting note(s): The emissions unit is regulated under Rule 62-296.406, F.A.C., Fossil Fuel Steam Generators with Less than 250 million Btu per Hour Heat Input}

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

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

**B.1. Permitted Capacity.** The maximum operation heat input rate is 15.5 million Btu per hour. [Rules 62-4.160(2), 62-210.200(PTE) and 62-296.406, F.A.C.]

{Permitting note: 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 to 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. Regular record keeping is not required for heat input. Instead the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of the process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.}

**B.2. Emissions Unit Operating Rate Limitation After Testing.** See specific condition **B.16**. [Rule 62-297.310(2), F.A.C.]

**B.3. Methods of Operation. Fuels.** This boiler is permitted to fire only the following fuels and at the maximum rates shown:

| Fuel            | Maximum % Sulfur | Maximum MMBtu/hr | Maximum Fuel Usage |
|-----------------|------------------|------------------|--------------------|
| Natural Gas     | --               | 15.5             | 15 Mcf/hr          |
| No. 2 Fuel Oil* | 0.5% by weight   | 15.5             | 110 gal/hr         |
| Propane         | --               | 15.5             | 191 gal/hr         |

\* New No. 2 fuel oil only (waste or recycled oil is not allowed)  
[Rule 62-213.410, F.A.C.; and, AO 52-244478]

**B.4. Hours of Operation.** This emissions unit may operate continuously, i.e., 8,760 hours/year. [Rule 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.}

{Permitting Note: Unless otherwise specified, the averaging times for Specific Conditions **B.5.-B.6.** are based on the specified averaging time of the applicable test method.}

**B.5. Visible Emissions.** Visible emissions shall not exceed 20 percent opacity, except for one two-minute period per hour during which opacity shall not exceed 40 percent. [Rule 62-296.406(1), F.A.C.; and, AO 52-244478]

**B.6. Visible emissions - Soot Blowing and Load Change.** Visible emissions shall not exceed 60 percent opacity during the 3-hours in any 24 hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.

A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.

Visible emissions above 60 percent opacity shall be allowed for not more than 4, six (6) minute periods, during the 3-hour period of excess emissions allowed by the subparagraph, for boiler cleaning or load changes, at units which have installed and are operating, or have committed to install and operate, continuous opacity monitors.

[Rule 62-210.700(3), F.A.C.]

**B.7. Sulfur Dioxide - Sulfur Content.** The new No. 2 fuel oil sulfur content shall not exceed 0.5 percent, by weight. See specific condition **B.15.** [Rule 62-296.406(3), F.A.C.; and, AO 52-244478]

### **Excess Emissions**

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

**B.8.** Excess emissions resulting from 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.]

**B.9.** Excess emissions resulting from startup or shutdown shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized.

[Rule 62-210.700(2), 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. 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.}

**B.12. Visible emissions.** The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C. See specific condition **B.13.**

[Rules 62-213.440 and 62-297.401, F.A.C.]

**B.13. DEP Method 9.** The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:

1. EPA Method 9, Section 2.4, Recording Observations. Opacity observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.
2. EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g., 20 percent opacity), the test result shall be the highest valid six-minute average for the set of observations taken. For multiple-valued opacity standards

(e.g., 20 percent opacity, except that an opacity of 40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:

- a. For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.
- b. For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken.

In order to be valid, any required average (i.e., a six-minute or two-minute average) shall be based on all of the valid observations in the sequential subset of observations selected, and the selected subset shall contain at least 90 percent of the observations possible for the required averaging time. Each required average shall be calculated by summing the opacity value of each of the valid observations in the appropriate subset, dividing this sum by the number of valid observations in the subset, and rounding the result to the nearest whole number. The number of missing observations in the subset shall be indicated in parenthesis after the subset average value. [Rule 62-297.401, F.A.C.]

**B.14. Sulfur Dioxide.** The permittee elected to demonstrate compliance by accepting a liquid fuel sulfur limit that will be verified with a fuel analysis provided by the vendor or the permittee upon each fuel delivery. This protocol is allowed because the emissions unit does not have an operating flue gas desulfurization device. See specific conditions **B.7.** and **B.15.**

[Rule 62-296.406(3), F.A.C.]

**B.15.** The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition.

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

**B.16. Operating Rate During Testing.** Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. 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.

[Rules 62-297.310(2) & (2)(b), F.A.C.]

**B.17. Applicable Test Procedures.**

(a) **Required Sampling Time.**

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate

matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

- 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), F.A.C.]

**B.18. 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.

2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid for more than 400 hours other than during startup.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to 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.

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

- a. Visible emissions, if there is an applicable standard;
- b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
- c. Each NESHAP pollutant, if there is an applicable emission standard.

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid fuel, other than during startup, for a total of more than 400 hours.

9. The owner or operator shall notify the PCDEM, 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) Special Compliance Tests. When the PCDEM, 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 PCDEM.

(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]

**B.19.** By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning:

- a. only gaseous fuel(s); or
- b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or
- c. only liquid fuel(s) for less than 400 hours per year.

[Rule 62-297.310(7)(a)4., F.A.C.]

**B.20.** Annual and permit renewal compliance testing for particulate matter emissions is not required for these emissions units while burning:

- a. only gaseous fuel(s); or
- b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or
- c. only liquid fuel(s) for less than 400 hours per year.

[Rules 62-297.310(7)(a)3. & 5., F.A.C.; and, ASP Number 97-B-01.]

### **Record keeping and Reporting Requirements**

**B.21.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify PCDEM 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 PCDEM.

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

**B.22.** All recorded data shall be maintained on file by the Source for a period of five years.

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

**B.23. Test Reports.**

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the PCDEM on the results of each such test.
- (b) The required test report shall be filed with the PCDEM 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 PCDEM 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.]



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

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

| <u>E.U. ID No.</u> | <u>Brief Description</u>      |
|--------------------|-------------------------------|
| -005               | Gas Turbine Peaking Unit #P-1 |
| -006               | Gas Turbine Peaking Unit #P-2 |
| -007               | Gas Turbine Peaking Unit #P-3 |
| -008               | Gas Turbine Peaking Unit #P-4 |

The four gas turbines are natural gas and/or No. 2 fuel oil fired combustion turbines manufactured by General Electric (model number MS7000) and are designated as Gas Turbine Peaking Units #P-1, #P-2, #P-3 and #P-4. The manufacturers fuel flow and heat input ratings for each turbine are 5,174 gallons per hour of No. 2 fuel oil, or 714 million cubic feet per hour of natural gas (corresponds to approximately 714 million Btu per hour, at 59 degrees F). The actual heat input rate of the turbine is a function of the ambient temperature. These combustion turbines are used as peaking units during peak demand times to run a nominal 56 MW generator (each). Emissions from the combustion turbines are uncontrolled.

{Permitting notes: These emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required. These emissions units are not subject to 40 CFR 60, Subpart GG, Standards of Performance for New Stationary Gas Turbines. Each combustion turbine has its own stack. Each combustion turbine began commercial operation in 1972.}

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

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

**C.1. Permitted Capacity.** The maximum operation heat input rates are as follows:

| <u>Unit No.</u> | <u>MMBtu/hr Heat Input</u> | <u>Fuel Type</u> |
|-----------------|----------------------------|------------------|
| P-1             | 714                        | Natural Gas      |
|                 | 714                        | No. 2 Fuel Oil   |
| P-2             | 714                        | Natural Gas      |
|                 | 714                        | No. 2 Fuel Oil   |
| P-3             | 714                        | Natural Gas      |
|                 | 714                        | No. 2 Fuel Oil   |
| P-4             | 714                        | Natural Gas      |
|                 | 714                        | No. 2 Fuel Oil   |

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

{Permitting note: 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 to 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. Regular record keeping is not required for heat input. Instead the owner or operator is expected

to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of the process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.}

**C.2. Emissions Unit Operating Rate Limitation After Testing.** See specific condition C.13. [Rule 62-297.310(2), F.A.C.]

**C.3. Methods of Operation - Fuels.** Only natural gas and/or new No. 2 fuel oil shall be fired in the combustion turbines. New No. 2 fuel oil is defined as fuel oil that has been refined from crude oil and has not been used and which may or may not contain additives. [Rule 62-213.410(1), F.A.C.; and, AO 52-253215A, AO 52-253216A, AO 52-253217A, and AO 52-253218A]

**C.4. Hours of Operation.** These emissions units may operate continuously, i.e., 8,760 hours/year. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, AO 52-253215A, AO 52-253216A, AO 52-253217A, and AO 52-253218A]

### **Emission Limitations and Standards**

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

{Permitting Note: Unless otherwise specified, the averaging time for Specific Condition C.5. is based on the specified averaging time of the applicable test method.}

**C.5. Visible Emissions.** 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 52-253215A, AO 52-253216A, AO 52-253217A, and AO 52-253218A]

**C.6. Not federally enforceable. Sulfur Dioxide - Sulfur Content.** The sulfur content of the No. 2 fuel oil shall not exceed 0.5 percent, by weight. [AO 52-253215A, AO 52-253216A, AO 52-253217A, and AO 52-253218A]

### **Excess Emissions**

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

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

**C.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**

**C.9. Not federally enforceable.** 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 **C.12**.  
[Rule 62-213.440, F.A.C.]

#### **C.10. 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: The attached 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.}

**C.11.** 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.]

**C.12.** The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or latest edition.  
[Rules 62-213.440 and 62-297.440, F.A.C.]

**C.13. Operating Rate During Testing.** Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100

percent of the peak heat input rate based on the average turbine inlet temperature during the test. The peak heat input rate is defined by a graph of Fuel Heat Input versus Ambient Temperature for each gas turbine. 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.

[Rules 62-297.310(2), F.A.C.; and, AO 52-253215A, AO 52-253216A, AO 52-253217A, and AO 52-253218A]

**C.14. Applicable Test Procedures.**

**(a) Required Sampling Time.**

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

- 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.]

**C.15. 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 fuel for a total of no more than 400 hours.

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

- a. Visible emissions, if there is an applicable standard;
- b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead

compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and

c. Each NESHAP pollutant, if there is an applicable emission standard.

9. The owner or operator shall notify the PCDEM, 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) Special Compliance Tests. When the PCDEM, 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 PCDEM.

(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]

**C.16. Visible Emissions Testing - Annual**. By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning:

- a. only gaseous fuels; or
- b. gaseous fuels in combination with any amount of liquid fuels for less than 400 hours per year; or
- c. only liquid fuels for less than 400 hours per year.

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

### **Recordkeeping and Reporting Requirements**

**C.17. Malfunction Reporting**. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the PCDEM 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.]

### **C.18. Test Reports**

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with PCDEM on the results of each such test.

(b) The required test report shall be filed with PCDEM 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.]

**C.19. Not Federally Enforceable. Operating Reports.** The annual operating report shall be based on the following:

(a) The Btu heating value, sulfur content (percent by weight), API gravity and density of the fuel being fired in the peaking units, shall be based on a weighted 12-month average (calendar year) and be calculated from the fuel delivery receipts and the vendors fuel oil analysis.

(b) Until further notice by the PCDEM, Progress Energy Florida shall calculate annual emissions (pounds per hour and tons per year), for the Annual Operating Report, by multiplying the total million Btu from fuel usage by the following emissions factors:

Emissions Factors for No. 2 Fuel Oil

|                         | <u>Pound per MMBtu</u> |
|-------------------------|------------------------|
| Particulate Matter (PM) | 0.061 (Total)          |
| PM <sub>10</sub>        | 0.48 PM                |
| Carbon Monoxide         | 0.048                  |
| Sulfur Dioxide          | 1.01(S)                |
| Nitrogen Oxides         | 0.698                  |
| Hydrocarbons (TOC)      | 0.017                  |

“S” denotes sulfur content, percent by weight. The sulfur dioxide emissions shall be based on a weighted 12-month average “S” value.

[AO 52-253215A, AO 52-253216A, AO 52-253217A, and AO 52-253218A]

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

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

| <u>Facility ID No.</u> | <u>E.U. ID No.</u> | <u>Brief Description</u>   |
|------------------------|--------------------|--|
| 7775047                | -001               | Relocatable diesel generator(s) will have a maximum (combined) heat input of 25.74 MMBtu/hour while being fueled by 186.3 gallons of new No. 2 fuel oil per hour with a maximum (combined) rating of 2460 kilowatts. Emissions from the generator(s) are uncontrolled. |

The generators may be relocated to any of the following facilities:

1. Crystal River Plant, Powerline Road, Red Level, Citrus County.
2. Bartow Plant, Weedon Island, St. Petersburg, Pinellas County.
3. Higgins Plant, Shore Drive, Oldsmar, Pinellas County.
4. Bayboro Plant, 13th Ave. & 2nd St. South, St. Petersburg, Pinellas County.
5. Wildwood Reclamation Facility, State Road 462, 1 mi. east of U.S. 301, Wildwood, Sumter County.
6. Hines Energy Complex, County Road 555, 1 mi. southwest of Homeland, Polk County.
7. Anclote Power Plant, 1729 Baileys Road, Holiday, Pasco County

{Permitting notes: These emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required. Each generator has its own stack. This section of the permit is only applicable when the generator(s) is (are) located at the Bartow Facility.}

**The following specific conditions apply to the emissions units listed above regardless of location:**

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

**D.1. Permitted Capacity.** The maximum (combined) heat input rate shall not exceed 25.74 million Btu per hour.  
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

**D.2. Emissions Unit Operating Rate Limitation After Testing.** See specific condition **D.12.**  
[Rule 62-297.310(2), F.A.C.]

**D.3. Methods of Operation - Fuels.** Only new No. 2 fuel oil with a maximum sulfur content of 0.5%, by weight, shall be fired in the diesel generator(s).  
[Rule 62-213.410, F.A.C.; and, AC 09-202080.]

**D.4. Hours of Operation.** The hours of operation expressed as “engine-hours” shall not exceed 2970 hours in any consecutive 12 month period. The total hours of operation expressed as “engine-hours” shall be the summation of the individual hours of operation of each generator. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, AC 09-202080.]

### **Emission Limitations and Standards**

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

{Permitting Note: Unless otherwise specified, the averaging time for specific condition **D.5.** is based on the specified averaging time of the applicable test method.}

**D.5. Visible Emissions.** Visible emissions from each generator shall not be equal to or greater than 20 percent opacity. [Rule 62-296.320(4)(b)1., F.A.C.; and, AC 09-202080.]

### **Excess Emissions**

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

**D.6.** 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.]

**D.7.** 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**

**D.8. Fuel Sulfur Analysis.** The permittee shall demonstrate compliance with the liquid fuel sulfur limit by means of a fuel analysis provided by the vendor or permittee upon each fuel delivery. See specific conditions **D.3.** and **D.11.** [Rule 62-213.440, F.A.C.]

**D.9. 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: The attached 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.}

**D.10.** The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.

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

**D.11.** The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-94, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-95, or the latest edition(s).

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

**D.12. Operating Rate During Testing.** Testing of emissions shall be conducted with the generator(s) operating at 90 to 100 percent of the maximum fuel firing rate for each generator. 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 operations may be 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. Failure to submit the actual operating rate may invalidate the test.

[Rules 62-297.310(2), F.A.C.; and, AC 09-202080.]

### **D.13. Applicable Test Procedures.**

#### **(a) Required Sampling Time.**

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

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.]

**D.14. 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 fuel for a total of no more than 400 hours.

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

- a. Visible emissions, if there is an applicable standard.

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. For each generator located in Pinellas County, FPC shall provide the same notification to the Air Quality Division of the PCDEM.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

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

[Rule 62-297.310(7), F.A.C.; SIP approved; and, AO 09-205952.]

**D.15. Visible Emissions Testing - Annual.** By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning liquid fuels for less than 400 hours per year.

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

**D.16.** After each relocation, each generator shall be tested within 30 days of startup for opacity and the fuel shall be analyzed for the sulfur content. See specific conditions **D.3.**, **D.5.**, and **D.8.**

[Rules 62-4.070(3) and 62-297.310(7)(b),F.A.C.; and, AO 09-205952.]

### **Recordkeeping and Reporting Requirements**

**D.17. Malfunction Reporting.** In the case of excess emissions resulting from malfunctions, the owner or operator shall notify PCDEM, if a generator is located in Pinellas County, 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 PCDEM.

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

#### **D.18. Test Reports.**

(a) Each generator shall be tested on an annual basis within 30 days of the date October 25.

(b) 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.

(c) The required test report shall be filed with the Southwest District Office and the Air Quality Division of the Pinellas County Department of Environmental Management, if a generator is located in Pinellas County, as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(d) The test reports for a unit that has been relocated shall be submitted to the Southwest District Office and the Air Quality Division of the PCDEM, if a generator is located in Pinellas County, within 45 days of testing.

[Rule 62-297.310(8), F.A.C.; and, AO 09-25952.]

**D.19.** To demonstrate compliance with specific condition **D.4.**, records shall indicate the daily hours of operation for each of the generators, the daily hours of operation expressed as “engine-hours” and the cumulative total hours of operation expressed as “engine-hours” for each month. The records shall be maintained for a minimum of 5 years and made available to the Southwest District Office and the Air Quality Division of the PCDEM upon request.

[Rules 62-213.440 and 62-297.310(8), F.A.C.; and, AO 09-205952.]

**D.20.** To demonstrate compliance with specific condition **D.3.**, records of the sulfur content, in percent by weight, of all the fuel burned shall be kept based on either vendor provided as-delivered or as-received fuel sample analysis. The records shall be maintained for a minimum of 5 years and made available to the Southwest District Office and the Air Quality Division of the PCDEM upon request.

[Rule 62-297.310(8), F.A.C.; and, AC 09-202080.]

**Source Obligation**

**D.21.** Specific conditions in construction permit AC 09-202080, limiting the “engine hours”, were accepted by the applicant to escape Prevention of Significant Deterioration new source review. If Progress Energy Florida requests a relaxation of any of the federally enforceable emission limits in this permit, the relaxation of limits may be subject to the preconstruction review requirements of Rule 62-212.400(5), F.A.C., as though construction had not yet begun. [Rule 62-212.400(2)(g), F.A.C.; and, AC 09-202080.]

**D.22.** Progress Energy Florida shall notify the Department’s Southwest District Office, in writing, at least 15 days prior to the date on which any diesel generator is to be relocated. The notification shall specify the following:

- a. which generator, by serial number, is being relocated,
- b. which location the generator is being relocated from and which location it is being relocated to, and
- c. the approximate startup date at the new location.

***If a diesel generator is to be relocated within Pinellas County, then Progress Energy Florida shall provide the same notification to the Air Quality Division of the PCDEM.***

[Rule 62-4.070(3), F.A.C.; and, AC 09-202080]

**Section IV. This section is the Acid Rain Part.**

**Operated by:** Progress Energy Florida  
**ORIS code:** 634

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

| <b>E.U. ID No.</b> | <b>Brief Description</b>  |
|--------------------|---|
| -001               | No. 1 Unit, Fossil Fuel Fired Steam Generator with Electrostatic Precipitator |
| -002               | No. 2 Unit, Fossil Fuel Fired Steam Generator                                 |
| -003               | No. 3 Unit, Fossil Fuel Fired Steam Generator                                 |

**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 December 22, 1995  
[Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

**A.2.** Sulfur dioxide (SO<sub>2</sub>) allowance allocations requirements for each Acid Rain unit are as follows:

| <b>E.U. ID No.</b> | <b>EPA ID</b> | <b>Year</b>   | <b>2000</b> | <b>2001</b> | <b>2002</b> | <b>2003</b> | <b>2004</b> |
|--------------------|---------------|---|-------------|-------------|-------------|-------------|-------------|
| -001               | 01            | <b>SO2 allowances, under Table 2 or 3 of 40 CFR Part 73</b> | 2805*       | 2805*       | 2805*       | 2805*       | 2805*       |
| -002               | 02            | <b>SO2 allowances, under Table 2 or 3 of 40 CFR Part 73</b> | 2961*       | 2961*       | 2961*       | 2961*       | 2961*       |
| -003               | 03            | <b>SO2 allowances, under Table 2 or 3 of 40 CFR Part 73</b> | 5428*       | 5428*       | 5428*       | 5428*       | 5428*       |

\*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, F.A.C., Fast-Track Revisions of Acid Rain Parts.

[Rules 62-213.413 and 62-214.370(4), F.A.C.]

**A.5.** Comments, notes, and justifications: none

**A.6.** Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be incorporated into the permit and shall be enforceable by the Administrator.

[40 CFR 70.6(a)(1)(ii); and, Rule 62-210.200, Definitions - Applicable Requirements, F.A.C.]

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

Progress Energy Florida  
P. L. Bartow Plant

PROPOSED Permit No.: 1030011-008-AV  
Facility ID No.: 1030011

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

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

### E.U. ID

| <u>No.</u> | <u>Brief Description of Emissions Units and/or Activity</u>                                |
|------------|--|
| -010       | General Boiler Building - Emergency diesel generator (basement) - 300 gallon fuel oil tank |
| -011       | North Terminal - Diesel engine - Cummings 175 hp - 150 gallon No. 2 oil tank               |
| -012       | South Terminal - Gasoline tank, filling station  |
| -013       | South Terminal - No. 2 oil storage tank  |
| -014       | Turbine - Solvent Storage - Navee cleaner storage tank (4X4X4)                             |
| -015       | Gas Turbine 1, 2, 3, and 4 - Lube oil vent with demister                                   |
| -016       | Gas Turbine 1, 2, 3, and 4 - Underground 2,600 gallon lube oil storage tank                |
| -017       | Gas Turbine 1, 2, 3, and 4 - 500 gallon waste oil storage tank                             |
| -018       | Fuel Storage - Tank No. 1 ,2 and 3 - 150,000 bbls No. 6 fuel oil                           |
| -019       | Fuel Storage - Tank No. 4 and 5 - 200,000 bbls No. 6 fuel oil                              |
| -020       | Fuel Storage - Tank No. 6 - 100,000 bbls No. 2 fuel oil                                    |
| -021       | Fuel Storage - Tank No. 7 and 8 - 259,000 bbls No. 6 fuel oil                              |
| -022       | General Site - Two, 500 gallon propane gas tanks for Unit 2 and 3 ignitors                 |
| -023       | Tank No. CT#01(2R), CT#02(3R), and CT#03(4R), CT#04(5R) - 5,509 gallons waste oil          |
| -024       | Tank No. CT#6(11) - 4,118,142 gallons No. 2 fuel oil                                       |
| -025       | Tank No. #1(1R) - 1,008 gallons unleaded gasoline  |
| -026       | Tank No. #2(16) - 34,128 gallons No. 2 fuel oil  |
| -027       | Tank No. #4(7) - 6,354,768 gallons No. 6 fuel oil  |
| -028       | Tank No. #12 - 100 gallons diesel - emergency fire pump                                    |
| -029       | Tank No. #13 - 200 gallons diesel - emergency generator                                    |
| -030       | Tank No. #15(6) - 550 gallons diesel - vehicle   |
| -031       | Tank No. #16(19) - 65,460 gallons fuel additive  |
| -032       | Tank No. Boiler Day Tank (15) - 18,675 gallons No. 2 fuel oil                              |
| -033       | Tank No. Terminal #1(9) - 6,329,232 gallons No. 6 fuel oil                                 |
| -034       | Tank No. Terminal #2(10) - 8,447,544 gallons No. 6 fuel oil                                |
| -035       | Tank No. Terminal #3(12) - 10,540,740 gallons No. 6 fuel oil                               |
| -036       | Tank No. Terminal #4(13) - 10,542,294 gallons No. 6 fuel oil                               |
| -037       | Tank No. Substation #1 and Substation #2 - 16,002 gallons cable oil                        |

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

Progress Energy Florida  
P. L. Bartow Plant

PROPOSED Permit No.: 1030011-008-AV  
Facility ID No.: 1030011

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

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

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

1. Water Laboratory solvent use and hood-chemical analyses for water
2. Water Laboratory flammable chemical storage cabinet
3. Machine Shop sand blaster, drill press, welding, lathes, hand-held tools, ect.
4. General Boiler Building fire protection equipment
5. North Terminal - Diesel fire pump building flammable liquid cabinet
6. North Terminal - Foam Building Nat. foam XL - 3%; 2,600 gallons
7. South Terminal - Machine Shop sand blaster, drill press, welding, lathes, hand-held tools, ect.
8. Turbine - Fire Protection CO2 fire system
9. Fuel Storage foam fire protection system
10. General Site surface coating <6.0 gallons per day
11. General Site brazing, soldering and welding
12. Unit 1 Fly Ash Handling System



## Appendix H-1: Permit History

Progress Energy Florida  
P. L. Bartow Plant

**PROPOSED Permit No.:** 1030011-008-AV  
**Facility ID No.:** 1030011

| E.U. ID No. | Description   | Permit No.     | Effective Date       | Expiration Date | Project Type <sup>1</sup> |
|-------------|---|----------------|----------------------|-----------------|---------------------------|
| All         | Facility  | 1030011-002-AV | 01/01/2000           | 12/31/2004      | Initial                   |
| -001        | No. 1 Unit, Fossil Fuel Fired Steam Generator with Electrostatic Precipitator | 1030011-005-AC | 09/04/1998           | 09/04/2003      | Construction (mod.)       |
| -001        | No. 1 Unit, Fossil Fuel Fired Steam Generator with Electrostatic Precipitator | 1030011-006-AC | 12/29/1999           | 12/29/2004      | Construction (mod.)       |
| -001        | No. 1 Unit, Fossil Fuel Fired Steam Generator with Electrostatic Precipitator | 1030011-007-AC | 10/28/2002           | 05/01/2003      | Construction (mod.)       |
| -001        | No. 1 Unit, Fossil Fuel Fired Steam Generator with Electrostatic Precipitator | 1030011-008-AV | Pending <sup>2</sup> | 12/31/2004      | Revision                  |
|             |   |                |                      |                 |                           |
|             |   |                |                      |                 |                           |
|             |   |                |                      |                 |                           |
|             |   |                |                      |                 |                           |
|             |   |                |                      |                 |                           |
|             |   |                |                      |                 |                           |
|             |   |                |                      |                 |                           |
|             |   |                |                      |                 |                           |
|             |   |                |                      |                 |                           |

<sup>1</sup> Project Type (select one): Title V: Initial, Revision, Renewal, or Admin. Correction; Construction (new or mod.); or, Extension (AC only).

<sup>2</sup> Change to an actual date, which is day 55 from the date of posting the PROPOSED Permit for EPA review (see confirmation e-mail from Tallahassee) or the date that EPA confirms resolution of any objections.

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

Progress Energy Florida  
Bartow Plant

**PROPOSED Permit No.:** 1030011-008-AV  
**Facility ID No.:** 1030011

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

| E.U. ID No. | Brief Description   |
|-------------|---|
| [-001]      | No. 1 Unit, Fossil Fuel Fired Steam Generator with Electrostatic Precipitator |
| [-002]      | No. 2 Unit, Fossil Fuel Fired Steam Generator                                 |
| [-003]      | No. 3 Unit, Fossil Fuel Fired Steam Generator                                 |

| Pollutant Name           | Fuel(s) | Hours/Year | Allowable Emissions   |           |       | Equivalent Emissions* |           | Regulatory Citation(s)                                      | See permit condition(s) |
|--------------------------|---------|------------|-----------------------|-----------|-------|-----------------------|-----------|---|-------------------------|
|                          |         |            | Standard(s)           | lbs./hour | TPY   | lbs./hour             | TPY       |   |                         |
| PM [EU-001]              | All     | 8,760      | 0.1 lb/MMBtu          | 122.0     | 534.4 |                       |           | Rules 62-296.405(1)(b), 62-296.700(4)(b) & 62-296.702(2)(a) | A.7.                    |
| PM [EU-002]              | All     | 8,760      | 0.1 lb/MMBtu          | 131.7     | 576.9 |                       |           | Rules 62-296.405(1)(b), 62-296.700(4)(b) & 62-296.702(2)(a) | A.7.                    |
| PM [EU-003]              | All     | 8,760      | 0.1 lb/MMBtu          | 221.1     | 968.6 |                       |           | Rules 62-296.405(1)(b), 62-296.700(4)(b) & 62-296.702(2)(a) | A.7.                    |
| PM [EU-001]              | All     | 8,760      | 0.3 lb/MMBtu          | 366.0     |       |                       |           | Rules 62-210.700(3) & 62-296.700(4)(b)                      | A.8.                    |
| PM [EU-002]              | All     | 8,760      | 0.3 lb/MMBtu          | 395.1     |       |                       |           | Rules 62-210.700(3) & 62-296.700(4)(b)                      | A.8.                    |
| PM [EU-003]              | All     | 8,760      | 0.3 lb/MMBtu          | 663.3     |       |                       |           | Rules 62-210.700(3) & 62-296.700(4)(b)                      | A.8.                    |
| SO <sub>2</sub> [EU-001] | Liquid  | 8,760      | 2.75 lb/MMBtu         |           |       | 3,355.0               | 14,684.9  | Rule 62-296.405(1)(c)1.j.                                   | A9.                     |
| SO <sub>2</sub> [EU-002] | Liquid  | 8,760      | 2.75 lb/MMBtu         |           |       | 3,621.75              | 15,883.28 | Rule 62-296.405(1)(c)1.j.                                   | A9.                     |
| SO <sub>2</sub> [EU-003] | Liquid  | 8,760      | 2.75 lb/MMBtu         |           |       | 6,080.25              | 25,631.5  | Rule 62-296.405(1)(c)1.j.                                   | A9.                     |
| SO <sub>2</sub>          | Liquid  | 8,760      | 2.5% by weight sulfur |           |       |                       |           | Rule 62-296.405(1)(e)3.                                     | A10.                    |
| VE                       | All     | 8,760      | 40% opacity           |           |       |                       |           | Rule 62-296.405(1)(a) & OGC Orders 86-1577 & 87-1261        | A.5.                    |
| VE                       | All     | 3 hr/24 hr | 60% opacity           |           |       |                       |           | Rule 62-210.700(3)  | A.6.                    |

Notes:  
\* The "Equivalent Emissions" listed are for informational purposes only.

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

Progress Energy Florida  
Bartow Plant

PROPOSED Permit No.: 1030011-008-AV  
Facility ID No.: 1030011

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No.      Brief Description  
[-004]            Bartow-Anclote Pipeline Heating Boiler

| Pollutant Name  | Fuel(s) | Hours/Year | Allowable Emissions     |           |     | Regulatory Citation(s) | See permit condition(s) |
|-----------------|---------|------------|-------------------------|-----------|-----|------------------------|-------------------------|
|                 |         |            | Standard(s)             | lbs./hour | TPY |                        |                         |
| SO <sub>2</sub> | Liquid  | 8,760      | 0.5% by weight sulfur   |           |     | Rule 62-296.406(3)     | B.7.                    |
| VE              | All     | 8,760      | 20% except 40% 2 min/hr |           |     | Rule 62-296.406(1)     | B.5.                    |
| VE              | All     | 3 hr/24 hr | 60% opacity             |           |     | Rule 62-210.700(3)     | B.6.                    |

Notes:  
\* The "Equivalent Emissions" listed are for informational purposes only.

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

Progress Energy Florida  
Bartow Plant

PROPOSED Permit No.: 1030011-008-AV  
Facility ID No.: 1030011

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

| E.U. ID No. | Brief Description             |
|-------------|-------------------------------|
| [-005]      | Gas Turbine Peaking Unit #P-1 |
| [-006]      | Gas Turbine Peaking Unit #P-2 |
| [-007]      | Gas Turbine Peaking Unit #P-3 |
| [-008]      | Gas Turbine Peaking Unit #P-4 |

| Pollutant Name  | Fuel(s) | Hours/Year | Allowable Emissions   |           |     | Equivalent Emissions |     | Regulatory Citation(s)                   | See permit condition(s) |
|-----------------|---------|------------|-----------------------|-----------|-----|----------------------|-----|--|-------------------------|
|                 |         |            | Standard(s)           | lbs./hour | TPY | lbs./hour            | TPY |  |                         |
| SO <sub>2</sub> | Liquid  | 8,760      | 0.5% by weight sulfur |           |     |                      |     | AO52-253215A, 253216A, 253217A & 253218A | C.6.                    |
| VE              | All     | 8,760      | 20% opacity           |           |     |                      |     | Rule 62-296.320(4)(b)1.                  | C.5.                    |

Notes:  
\* The "Equivalent Emissions" listed are for informational purposes only.

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

Progress Energy Florida  
Bartow Plant

**PROPOSED Permit No.:** 1030011-008-AV  
**Facility ID No.:** 1030011

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

**E.U. ID No.**      **Brief Description**  
[-xxx]            Relocatable Diesel Fired Generator(s)

| Pollutant Name  | Fuel(s) | Hours/Year | Allowable Emissions   |           | TPY | Equivalent Emissions |      | Regulatory Citation(s)          | See permit condition(s) |
|-----------------|---------|------------|-----------------------|-----------|-----|----------------------|------|---------------------------------|-------------------------|
|                 |         |            | Standard(s)           | lbs./hour |     | lbs./hour            | TPY  |                                 |                         |
| SO <sub>2</sub> | Liquid  | 2,970      | 0.5% by weight Sulfur |           |     | 14.16                | 0.22 | Applicant request & AC09-202080 | D.4. & D.6.             |
| VE              | All     | 2,970      | 20% opacity           |           |     |                      |      | Applicant request & AO09-205952 | D.5.                    |

Notes:  
\* The "Equivalent Emissions" listed are for informational purposes only.

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**Table 2-1, Summary of Compliance Requirements**

Progress Energy Florida  
Bartow Plant

**PROPOSED Permit No.:** 1030011-008-AV  
**Facility ID No.:** 1030011

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

| E.U. ID No. | Brief Description   |
|-------------|---|
| [-001]      | No. 1 Unit, Fossil Fuel Fired Steam Generator with Electrostatic Precipitator |
| [-002]      | No. 2 Unit, Fossil Fuel Fired Steam Generator                                 |
| [-003]      | No. 3 Unit, Fossil Fuel Fired Steam Generator                                 |

| Pollutant Name<br>or Parameter | Fuel(s)          | Compliance<br>Method                          | Testing<br>Time<br>Frequency | Frequency<br>Base<br>Date * | Min. Compliance<br>Test<br>Duration | Compliance |  |
|--------------------------------|------------------|---|------------------------------|-----------------------------|-------------------------------------|------------|--|
|                                |                  |   |                              |                             |                                     | CMS**      | See permit condition(s)  |
| VE EU[-001]                    | All              | EPA Method 9                                  | 6 months                     | 3/16 & 9/16                 | 60 min                              | Yes        | A.19., A.29.and A.30.<br>A.19.and A.30.<br>A.20., A.29.and A.31.<br>A.20.and A.31.<br>A.21.and A.22.<br>A.11., A.12., A.13., & A.32. |
| VE EU[-002 & -003]             | All              | EPA Method 9                                  | Annual                       | 5/28 & 4/28                 | 60 min                              |            |  |
| PM EU[-001]                    | All              | EPA Method 17, 5, 5B or 5F                    | 6 months                     | 3/16 & 9/16                 | 1 hr                                |            |  |
| PM EU[-002 & -003]             | All              | EPA Method 17, 5, 5B or 5F                    | Annual                       | 5/28 & 4/28                 | 1 hr                                |            |  |
| SO <sub>2</sub>                | Liquid           | EPA Method 6, 6A, 6B, or 6C, or fuel analysis | Annual                       | w/ PM test                  | 1 hr                                |            |  |
| Used oil                       | On-specification | EPA SW-846                                    | each batch                   |                             |                                     |            |  |

Notes.  
 \* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.  
 \*\*CMS (=) continuous monitoring system

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**Table 2-1, Summary of Compliance Requirements**

Progress Energy Florida  
Bartow Plant

**PROPOSED Permit No.:** 1030011-008-AV  
**Facility ID No.:** 1030011

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

**E.U. ID No.**                      **Brief Description**  
[-004]                              Bartow-Anclote Pipeline Heating Boiler

| Pollutant Name<br>or Parameter | Fuel(s)       | Compliance<br>Method         | Testing<br>Time<br>Frequency | Frequency<br>Base<br>Date * | Min. Compliance<br>Test<br>Duration | Compliance System |                                |
|--------------------------------|---------------|------------------------------|------------------------------|-----------------------------|-------------------------------------|-------------------|--------------------------------|
|                                |               |                              |                              |                             |                                     | CMS**             | See permit condition(s)        |
| VE<br>SO <sub>2</sub>          | All<br>Liquid | DEP Method 9<br>ASTM Methods | Annual<br>each delivery      | 31-May                      | 30 min                              |                   | B.12. & B.13.<br>B.14. & B.15. |

Notes:  
 \* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.  
 \*\*CMS [=] continuous monitoring system

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**Table 2-1, Summary of Compliance Requirements**

Progress Energy Florida  
Bartow Plant

**PROPOSED Permit No.:** 1030011-008-AV  
**Facility ID No.:** 1030011

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

| E.U. ID No. | Brief Description             |
|-------------|-------------------------------|
| [-005]      | Gas Turbine Peaking Unit #P-1 |
| [-006]      | Gas Turbine Peaking Unit #P-2 |
| [-007]      | Gas Turbine Peaking Unit #P-3 |
| [-008]      | Gas Turbine Peaking Unit #P-4 |

| Pollutant Name<br>or Parameter | Fuel(s)       | Compliance<br>Method         | Testing<br>Time | Frequency      | Min. Compliance<br>Test | CMS** | See permit condition(s) |
|--------------------------------|---------------|------------------------------|-----------------|----------------|-------------------------|-------|-------------------------|
|                                |               |                              | Frequency       | Base<br>Date * | Duration                |       |                         |
| VE<br>SO <sub>2</sub>          | All<br>Liquid | EPA Method 9<br>ASTM Methods | Annual          | 1-Feb          | 30 min                  |       | C.11. & C.16.<br>C.12.  |
|                                |               |                              | each delivery   |                |                         |       |                         |

Notes:  
 \* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.  
 \*\*CMS [=] continuous monitoring system

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**Table 2-1, Summary of Compliance Requirements**

Progress Energy Florida  
Bartow Plant

**PROPOSED Permit No.:** 1030011-008-AV  
**Facility ID No.:** 1030011

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

**E.U. ID No.**                      **Brief Description**  
[-xxx]                              Relocatable Diesel Fired Generator(s)

| Pollutant Name<br>or Parameter | Fuel(s) | Compliance<br>Method         | Testing<br>Time<br>Frequency | Frequency<br>Base<br>Date * | Min. Compliance<br>Test<br>Duration | CMS** |                         |
|--------------------------------|---------|------------------------------|------------------------------|-----------------------------|-------------------------------------|-------|-------------------------|
|                                |         |                              |                              |                             |                                     |       | See permit condition(s) |
| VE<br>SO <sub>2</sub>          | Liquid  | EPA Method 9<br>ASTM Methods | Annual<br>each delivery      | 30 days from startup        | 30 min                              |       | D.11.<br>D.12.          |

Notes:  
 \* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.  
 \*\*CMS [=] continuous monitoring system

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