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STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit by:

Mr. J. Jeffery Pardue
Director, Environmental Services Department
Florida Power Corporation
3201 34th Street South
St. Petersburg, Florida 33711

FINAL Permit No.: 1030011-002-AV
and Permit No.: 1030011-006-AC
Bartow Facility

Enclosed is FINAL Permit Number 1030011-002-AV and Permit Number 1030011-006-AC for the operation of the Bartow Facility located at Weedon Island, St. Petersburg, Pinellas County issued pursuant to Chapter 403, Florida Statutes (F.S.).

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

Executed in Tallahassee, Florida.

C. H. Fancy

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 12/29/99 to the person(s) listed or as otherwise noted:

- Mr. Kennard Kosky, PE, Golder Associates, Inc.
- Mr. Scott Osbourn, FPC
- Mr. Peter Hessling, PCDEM
- Mr. Gregg Worley, USEPA, Region 4 (INTERNET E-mail Memorandum)
- Ms. Elizabeth Bartlett, USEPA, Region 4 (INTERNET E-mail Memorandum)

Clerk Stamp

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

Barbara J. Portwell 12/29/99
(Clerk) (Date)

FINAL PERMIT DETERMINATION

I. Comment(s).

Objections were received from USEPA, the objections were resolved, approval of the resolutions were conveyed in a letter from Winston Smith dated December 16, 1999 and the PROPOSED Title V permit was changed. The comments were not considered significant enough to reissue a DRAFT Title V permit and require another public notice. The changes made are shown below.

A. EPA Objection Issues

1. Emissions Limitations - The statement of basis indicates that each emission unit is subject to a particulate matter emissions limit of 0.1 lb/MMBtu, and this limit is effectively equivalent to 0.149 lb/MMBtu due to rounding. This is also stated for conditions of soot blowing, where the particulate matter emission limit of 0.3 lb/MMBtu would be equivalent to 0.349 lb/MMBtu. However, these statements are incorrect. A measured emission rate of 0.149 lb/MMBtu actually rounds to 0.15 lb/MMBtu rather than 0.1 lb/MMBtu, which is in excess of the emission limit, and therefore not allowable.

Part 70 authorizes EPA to object "to issuance of any proposed permit determined by the Administrator not to be in compliance with applicable requirements or requirements under [part 70]." See 40 C.F.R. § 70.8(c)(1). We are objecting to the statement in the statement of basis indicating that the permit's 0.1 lb/MMBtu particulate limit is "effectively equivalent to 0.149 lb/MMBtu because of rounding." This represents an improper and incorrect statement of the legal and factual basis for the permit's 0.1 lb/MMBtu particulate limit, and therefore issuance of the proposed permit with this statement of basis does not comply with the requirement of part 70 at 40 C.F.R. § 70.7(a)(5). Moreover, emission levels of 0.149 lb/MMBtu will not assure compliance with the 0.1 lb/MMBtu particulate limit. Accordingly, issuance of the proposed permit with this statement of basis would not assure compliance with the applicable requirement represented by the 0.1 lb/MMBtu particulate limit.

The statement of basis justifies use of rounding based on "the agreement of March 10, 1998, between EPA, Region 4 and the Department to resolve an objection on this specific issue." However, EPA's March 16, 1998, response to FDEP's March 10, 1998, letter specifically requested that language on rounding be removed from the statement of basis for five Florida Power and Light permits "in order to avoid misinterpretation." As a result, all references to rounding must be removed from the statement of basis.

Future permit determinations should provide justification for allowing annual particulate matter stack testing based on past compliance with emission limits and the potential for variability of emissions based on review of historical data. Periodic monitoring should be based on a case-by-case evaluation of emissions data rather than on a "bright line" test of whether average emissions exceed fifty percent of a "rounded" emission limit.

RESPONSE: The Statement of Basis will be changed as follows:

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 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. The Department has determined that the appropriate particulate matter testing frequency for the fossil fuel steam generators is annually whenever fuel oil is used for more than 400 hours in the preceding year. This frequency is justified by the low emission rate documented in previous emissions tests while firing fuel oil. This unit is subject to a steady-state PM emission limit of 0.1 lb/MMBtu, which is effectively equivalent to 0.149 lb/MMBtu because of rounding, in accordance with the agreement of March 10, 1998 between EPA, Region 4 and the Department to resolve an objection on this specific issue. The applicant has presented historical PM test results which show that the steady-state average results are less than half the applicable effective standard. The Department has determined that sources with emissions less than half of the effective standard shall test annually. A five year average of results of particulate matter emission testing in lb/MMBtu for Unit No. 1 is 0.054, steady-state.

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. The Department has determined that the appropriate particulate matter testing frequency for the fossil fuel steam generators is annually whenever fuel oil is used for more than 400 hours in the preceding year. This frequency is justified by the low emission rate documented in previous emissions tests while firing fuel oil. This unit is subject to a steady-state PM emission limit of 0.1 lb/MMBtu, which is effectively equivalent to 0.149 lb/MMBtu because of rounding, in accordance with the agreement of March 10, 1998 between EPA, Region 4 and the Department to resolve an objection on this specific issue. The applicant has presented historical PM test results which show that the steady-state average results are less than half the applicable effective standard. The Department has determined that sources with emissions less than half of the effective standard shall test annually. A five year average of results of particulate matter emission testing in lb/MMBtu for Unit No. 2 is 0.069, steady-state.

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. The Department has determined that the appropriate particulate matter testing frequency for the fossil fuel steam generators is annually whenever fuel oil is used for more than 400 hours in the preceding year. This frequency is justified by the low emission rate documented in previous emissions tests while firing fuel oil. This unit is subject to a steady-state PM emission limit of 0.1 lb/MMBtu, which is effectively equivalent to 0.149 lb/MMBtu because of rounding, in accordance with the agreement of March 10, 1998 between EPA, Region 4 and the Department to resolve an objection on this specific issue. The applicant has presented historical PM test results which show that the steady-state average results are less than half the applicable effective standard. The Department has determined that sources with emissions less than half of the effective standard shall test annually. A five year average of results of particulate matter emission testing in lb/MMBtu for Unit No. 3 is 0.067, steady-state.

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 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 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. The Department has determined that the appropriate particulate matter testing frequency for the fossil fuel steam generators is annually whenever fuel oil is used for more than 400 hours in the preceding year. This frequency is justified by the low emission rate documented in previous emissions tests while firing fuel oil. This unit is subject to a steady-state PM emission limit of 0.1 lb/MMBtu. The applicant has presented historical PM test results which show that the steady-state average results are well below the applicable effective standard. The Department has determined that sources that consistently test below the effective standard shall test annually. A five year average of results of particulate matter emission testing in lb/MMBtu for Unit No. 1 is 0.054, steady-state.

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. The Department has determined that the appropriate particulate matter testing frequency for the fossil fuel steam generators is annually whenever fuel oil is used for more than 400 hours in the preceding year. This frequency is justified by the low emission rate documented in previous emissions tests while firing fuel oil. This unit is subject to a steady-state PM emission limit of 0.1 lb/MMBtu. The applicant has presented historical PM test results which show that the steady-state average results are well below the applicable effective standard. The Department has determined that sources that consistently test below the effective standard shall test annually. A five year average of results of particulate matter emission testing in lb/MMBtu for Unit No. 2 is 0.069, steady-state.

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. The Department has determined that the appropriate particulate matter testing frequency for the fossil fuel steam generators is annually whenever fuel oil is used for more than 400 hours in the preceding year. This frequency is justified by the low emission rate documented in previous emissions tests while firing fuel oil. This unit is subject to a steady-state PM emission limit of 0.1 lb/MMBtu. The applicant has presented historical PM test results which show that the steady-state average results are well below the applicable effective standard. The Department has determined that sources that consistently test below the effective standard shall test annually. A five year average of results of particulate matter emission testing in lb/MMBtu for Unit No. 3 is 0.067, steady-state.

2. Appropriate Averaging Times - The particulate matter emission limits in conditions A.7 and A.8 do not contain averaging times. Because the stringency of emission limits is a function of both magnitude and averaging time, appropriate averaging times must be added to the permit in order for the limits to be practicably enforceable. An approach that may be used to address this deficiency is to include a general condition in the permit stating that the averaging times for all specified emission standards are tied to or based on the run time of the test method(s) used for determining compliance.

RESPONSE: Add the following after both Specific Condition A.7. and A.8.:

Add: {Permitting note: The averaging time for the particulate matter standard corresponds to the cumulative sampling time of the specified test method.}

B. EPA General Comments

1. General Comment - The title page of the permit specifies that this permit determination is both a proposed title V permit and a draft construction permit. The statement of basis and the permit should both identify which conditions are part of the draft construction permit, and/or which units are subject to the construction permit.

RESPONSE: The following will be added to both the Statement of Basis and the Facility Description under Section I:

Add: The construction permitting action changes the status of a previously permitted emissions unit, the fly ash collection system associated with the Unit 1 electrostatic precipitator (ESP). The permit to construct reclassifies the fly ash system from a regulated emissions unit to an insignificant emissions unit/activity. A previous modification implemented a closed-loop fly ash system, which replaced a conventional fly ash silo/transfer system. The fly ash system (formally called Emissions Unit I.D. No. -009) now meets the requirements of Rules 62-210.300(3)(a) and 62-213.430(6)(b), F.A.C., and is reclassified as an Insignificant Emissions Unit/Activity, where it is currently listed.

2. CAM Applicability - The Unit No. 1 discussions in the statement of basis and in Section III, Subsection A on page 6 of the permit, state that "the provisions of 40 CFR 64 do not apply [40 CFR 64.2(b)(ii)]." While the electrostatic precipitator for Unit No. 1 may not meet the applicability requirement for CAM specified under 40 C.F.R. 64.2(a)(2), Region 4 believes that CAM should not be referenced in the permit until a formal applicability determination has been made through the title V permit renewal process. Furthermore, reference to CAM is not necessary to support the claim that particulate and opacity limits can be met without use of the ESP.

RESPONSE: No change is proposed.

3. Statement of Basis - The discussions for units 1 through 3 provide justification for annual testing of particulate matter based on five years of data showing emissions at less than half of the allowable limit. Review of the permit application indicates that FPC petitioned for annual particulate testing in accordance with the provisions of 62-296.405(1)(a) F.A.C. so that they would be allowed a visible emissions limit of 40 percent with annual, rather than quarterly, particulate testing. The statement of basis should be modified to reflect the allowance of annual particulate testing with a 40 percent VE in accordance with the SIP and supporting orders issued by FDEP.

RESPONSE: The following will be added to the Statement of Basis:

Add: In accordance with the provisions of Rule 62-296.405(1)(a), F.A.C., Units 1, 2 and 3 elected to test for particulate matter quarterly and were allowed visible emissions of 40 percent opacity. The Bartow Plant demonstrated that the particulate matter standard was regularly complied with for each unit and petitioned the Secretary for a reduction in the frequency of particulate matter testing from quarterly to annually, as provided by the rule. The request for annual testing was granted to Unit 1 by OGC Order No. 96-A-01, Unit 2 by OGC Order No. 87-1261 and Unit 3 by OGC Order No. 86-1577.

4. Compliance Certification - Facility-wide Condition 11 of the permit should specifically reference the required components of Appendix TV-3, item 51, which lists the compliance certification requirements of 40 C.F.R. 70.6(c)(5)(iii), to ensure that complete certification information is submitted to EPA.

RESPONSE: The requirement for the annual statement of compliance was contained in the Acid Rain Section of the permit. For consistency with other permits issued to date, the Specific Condition A.4. will be deleted from the Acid Rain Section and the condition will be added to the Facility-wide Requirements in Section II of the permit.

Delete: A.4. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3), F.A.C., shall be submitted within 60 (sixty) days after the end of the calendar year. {See condition 52., APPENDIX TV-3, TITLE V CONDITIONS}
[Rule 62-214.420(11), F.A.C.]

Add: 12. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3), F.A.C., shall be submitted within 60 (sixty) days after the end of the calendar year. {See condition 51., APPENDIX TV-3, TITLE V CONDITIONS}
[Rule 62-214.420(11), F.A.C.]

5. Minimum Sample Volume for Particulate Testing - Condition A.20. specifies a minimum sample volume of 30 dry standard cubic feet for particulate testing, in accordance with 62-296.405(e)2. F.A.C. of the SIP. Condition A.26.(b) specifies a minimum sample volume of 25 dscf, or other volume as required by rule. Since these permit conditions are contradictory, a permitting note should be added to Conditions A.26.(b) to clarify that the required sample volume is 30 dry standard cubic feet.

RESPONSE: The following change will be made to Specific Condition A.26.:

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

To: (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**.

6. Record keeping - Conditions D.19 and D.20 address record keeping for the relocatable generators. The permit states that this generator will be operated at six different facilities, five of which are not covered under this permit. This emission unit should also be included in the permits for the other five facilities. Please clarify in the statement of basis whether or not this is the case. The above referenced permit conditions require the source to keep records for the hours of operation as well as the fuel oil sulfur content in order to demonstrate compliance with operational and emission limitations. However, the permit does not indicate whether the records will be transferred with the emission unit when it is moved to another facility, or if each facility will be responsible for maintaining their own records. The permit and/or statement of basis should specify how these records will be maintained and if record keeping activities must be coordinated among the facilities.

RESPONSE: The following change is made to the Statement of Basis:

From: 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 generator(s) may be relocated at 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

To: 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 generator(s) may be relocated at 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

These generator(s) are included in the Title V permits for each of the above listed facilities. The records required by the permit shall be maintained at each individual site. FPC's corporate environmental services department shall be responsible for agency notifications and reporting and is functionally structured to provide coordination among the facilities.

8. Acid Rain Requirements - Please note that the allowances allocated to the Bartow facility units 001 through 003, as indicated under Section IV, Condition A.2. of the proposed permit have been changed. This revision was published in the Federal Register on September 28, 1998 (Vol. 63 No. 187, pp 51706-51765). We recommend that the allowances that are indicated for these units be adjusted to reflect the revised allocation.

RESPONSE: The following changes will be made to Specific Condition A.2. of the Acid Rain Section:

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

| <u>E.U. ID No.</u> | <u>EPA ID</u> | <u>Year</u> | <u>2000</u> | <u>2001</u> | <u>2002</u> | <u>2003</u> | <u>2004</u> |
|------------------------|-------------------|------------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|
| -001 | 01 | SO2 allowances, under Table 2 or 3 of 40 CFR Part 73 | 2785* | 2785* | 2785* | 2785* | 2785* |
| -002 | 02 | SO2 allowances, under Table 2 or 3 of 40 CFR Part 73 | 2941* | 2941* | 2941* | 2941* | 2941* |
| -003 | 03 | SO2 allowances, under Table 2 or 3 of 40 CFR Part 73 | 5383* | 5383* | 5383* | 5383* | 5383* |

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.]

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

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

II. Conclusion.

In conclusion, the changes that have been made are insignificant in nature and do not impose additional noticing requirements. The permitting authority hereby issues the FINAL Title V permit, with any changes noted above.

Florida Power Corporation
Bartow Plant
Facility ID No.: 1030011
Pinellas County

Initial Title V Air Operation Permit
FINAL Permit No.: 1030011-002-AV
Air Construction Permit No.: 1030011-006-AC

Permitting Authority:

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

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

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

Compliance Authority:

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

Initial Title V Air Operation Permit
FINAL Permit No.: 1030011-002-AV
Draft Air Construction Permit No.: 1030011-006-AC

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Permittee:

Florida Power Corporation
263 13th Avenue South
St. Petersburg, Florida 33701-5511

FINAL Permit No.: 1030011-002-AV**Air Construction Permit No.:** 1030011-006-AC**Facility ID No.:** 1030011**SIC Nos.:** 49, 4911**Project:** Combined Air Construction/Initial Title V
Air Operation Permit

This permit is for the operation of the Bartow Plant. This facility is located on Weedon Island, 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.

STATEMENT OF BASIS: This combined Air Construction permit/Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-212, 62-213, and 62-214. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Referenced attachments made a part of this permit:

Appendix U-1, List of Unregulated Emissions Units and/or Activities
Appendix I-1, List of Insignificant Emissions Units and/or Activities
APPENDIX TV-3, TITLE V CONDITIONS (version dated 04/30/99)
APPENDIX SS-1, STACK SAMPLING FACILITIES (version dated 10/07/96)
TABLE 297.310-1, CALIBRATION SCHEDULE (version dated 10/07/96)
Phase II Acid Rain Application/Compliance Plan received December 22, 1995
Alternate Sampling Procedure: ASP Number 97-B-01
ORDER CORRECTING SCRIVENER'S ERROR: ASP Number 97-B-01
OGC Order No. 86-1577
OGC Order No. 87-1261
OGC Order No. 96-A-01

Effective Date: January 1, 2000**Renewal Application Due Date:** July 5, 2004**Expiration Date:** December 31, 2004

Howard L. Rhodes, Director
Division of Air Resources Management

HLR/sms/es

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 Florida Power Corporation power plants, as needed.

The construction permitting action changes the status of a previously permitted emissions unit, the fly ash collection system associated with the Unit 1 electrostatic precipitator (ESP). The permit to construct reclassifies the fly ash system from a regulated emissions unit to an insignificant emissions unit/activity. A previous modification implemented a closed-loop fly ash system, which replaced a conventional fly ash silo/transfer system. The fly ash system (formally called Emissions Unit I.D. No. -009) now meets the requirements of Rules 62-210.300(3)(a) and 62-213.430(6)(b), F.A.C., and is reclassified as an Insignificant Emissions Unit/Activity, where it is currently listed.

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).

E.U.

| <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 |
| -004 | Bartow-Anclote Pipeline Heating Boiler |
| -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 |
| -001 | Relocatable Diesel Fired Generator(s) [Facility ID No. 7775047] |

Unregulated Emissions Units and/or Activities
{See Appendix U-1}

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

Subsection C. Relevant Documents.

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

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

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

Table 2-1, Summary of Compliance Requirements

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

Appendix H-1, Permit History/ID Number Changes

These documents are on file with the permitting authority:

Initial Title V Permit Application received June 14, 1996

Additional Information Request dated May 20, 1997

Additional Information Response received August 25, 1997

Letter Dated June 24, 1996 Re: PSD Applicability Determination - Bartow Unit No. 1 PSD

Letter received October 17, 1997, from Mr. Gary Robbins

Letter received November 24, 1997, from Mr. Scott Osbourn

Construction Permit Application received March 29, 1999

Letter received July 6, 1999, from Mr. Gary Robbins

Letter received July 26, 1999, from Mr. Scott Osbourn

EPA Objections to the PROPOSED Permit from Mr. Winston Smith dated September 16, 1999

DEP response to the Objections from Mr. C. H. Fancy dated December 9, 1999

Withdrawal of the EPA Objections in a letter from Mr. Winston Smith dated December 16, 1999

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

1. APPENDIX TV-3, TITLE V CONDITIONS, is a part of this permit.
{Permitting note: APPENDIX TV-3, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}
2. **Not federally enforceable.** General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.; and, Pinellas County Code, Section 58-178]
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). If required by 40 CFR 68, the permittee shall submit to the implementing agency:
 - a. a risk management plan (RMP) when, and if, such requirement becomes applicable; and
 - b. certification forms and/or RMPs according to the promulgated rule schedule.[40 CFR 68]
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. **Not federally enforceable.** General Pollutant Emission Limiting Standards. Volatile Organic Compounds Emissions or Organic Solvents Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
[Rule 62-296.320(1)(a), F.A.C.]
{Permitting note: There are no requirements deemed necessary and ordered by the Department, at this time.}

8. Not federally enforceable. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include: maintenance of paved areas as needed, regular mowing of grass and care of vegetation, and limiting access to plant property by unnecessary vehicles.

[Rule 62-296.320(4)(c)2., F.A.C.; and, proposed by applicant in the initial Title V permit application received June 14, 1996.]

9. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.

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

10. The permittee shall submit all compliance related notifications and reports required of this permit to the 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

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

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

12. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3), F.A.C., shall be submitted within 60 (sixty) days after the end of the calendar year. {See condition 51., APPENDIX TV-3, TITLE V CONDITIONS}

[Rule 62-214.420(11), F.A.C.]

Section III. Emissions Unit(s) and Conditions.

Subsection A. This section addresses the following emissions units.

E.U.

ID No. Brief Description

| | |
|------|-------------------------------------------------------------------------------|
| -001 | 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 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 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 oil On-specification used oil |
| -002 | new No. 2 through 6 fuel oil On-specification used oil Propane |
| -003 | new No. 2 through 6 fuel oil Natural gas On-specification used oil 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.}

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.]

{Permitting note: The averaging time for the particulate matter standard corresponds to the cumulative sampling time of the specified test method.}

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.]

{Permitting note: The averaging time for the particulate matter standard corresponds to the cumulative sampling time of the specified test method.}

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

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 exceedences 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 ₂ | 157(S) |
| CO | 5 |
| NO _x | 67 |
| VOC | 0.76 |

E.U. ID No. -002

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

E.U. ID No. -003

| Pollutant | No. 6 fuel oil (lb/1000 gal) | Natural Gas (lb/MMcf) |
|-----------------|------------------------------|-----------------------|
| SO ₂ | 157(S) | 0.6 |
| CO | 5 | 5 |
| NO _x | 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 (maximum) | 1,317 MMBtu/hr (maximum) | 2,266 MMBtu/hr (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 Engineering | Combustion 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, feedwater, 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 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]

Section III. Emissions Unit(s) and Conditions.

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

E.U.

| <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.}

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

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).

E.U.

| <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.}

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

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 verses 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, Florida Power Corporation 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 ₁₀ | 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).

| Facility ID No. | E. U. ID No. | Brief Description |
|------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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.}

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

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 condition **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 Florida Power Corporation 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. Florida Power Corporation 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 Florida Power Corporation 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: Florida Power Corporation
ORIS code: 634

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

The emissions unit(s) listed below are regulated under Acid Rain, Phase II.

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

A.1. The Phase II permit application submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of 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 July 1, 1995
 [Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

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

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

A.6. Comments, notes, and justifications:

None