



Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

PROPOSED Permit Electronic Posting Courtesy Notification

Florida Power/Progress Energy
Intercession City Facility
Facility ID No.: 0970014
Osceola County

Title V Air Operation Permit Renewal
PROPOSED Permit Project No.: 0970014-007-AV

The electronic version of the PROPOSED permit was posted on the Division of Air Resources Management's world wide web site for the United States Environmental Protection Agency (USEPA) Region 4 office's review on November 7, 2002.

USEPA's review period ends on the 45th day after the permit posting date. Day 45 is December 21, 2002. If an objection (veto) is received from USEPA, the permitting authority will provide a copy of the objection to the applicant.

Provided an objection is not received from USEPA, the PROPOSED permit will become a FINAL permit by operation of law on the 55th day after the permit posting date. Day 55 is December 31, 2002.

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Department of Environmental Protection

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

David B. Struhs
Secretary

November 6, 2002

Mr. Kris Edmondson – Plant Manager Central CT Sites
Florida Power / Progress Energy
100 Central Avenue, MAC – IC44
St. Petersburg, Florida 33701

Re: Title V Air Operation Permit Renewal
Proposed Permit Project No.: 0970014-007-AV
Renewal of Title V Air Operation Permit No.: 0970014-001-AV
Intercession City Facility

Dear Mr. Edmondson:

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

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permit will not be issued until the permitting authority receives written notice that the objection is resolved or withdrawn.

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

Sincerely,

Trina Vielhauer, Chief
Bureau of Air Regulation

TV/SMS/h
Enclosures

E-mail Copy furnished to:
Mr. Jamie Hunter, Florida Power / Progress Energy
Mr. Kennard F. Kosky, P.E., Golder Associates
Mr. Hamilton Oven, DEP-SCO
Mr. Len Kozlov, P.E., DEP-CD
U.S. EPA, Region 4

*Posted on 11/7/02 -
Mailed 11/12/02 -
11/12/02 cc: Jonathan Holtom*

"More Protection, Less Process"

PROPOSED PERMIT DETERMINATION

PROPOSED Permit No.: 0970014-007-AV

I. Public Notice.

An "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION" to Florida Power / Progress Energy for the Intercession City Facility located at 6525 Osceola Polk County Line Road, Intercession City, Osceola County, was clerked on September 30, 2002. The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION" was published in the Osceola News-Gazette on October 5, 2002. The DRAFT Title V Air Operation Permit Revision was available for public inspection at the Central District office in Orlando and the permitting authority's office in Tallahassee. Proof of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" was received on October 10, 2002.

II. Public Comment(s).

No Public Comments were received during the 30 (thirty)-day public comment period, however, comments were received from the Permittee. The comments were not considered significant enough to reissue the DRAFT Title V Permit and require another Public Notice, therefore, the DRAFT Title V Operation Permit was changed. Those comments are addressed below.

A. Letter from Mr. Kris Edmondson dated November 1, 2002, and received on November 5, 2002.

Section I Comments:

1. Please insert the words "*nominal generating*" prior to the word "*capacity*" in the second and third sentences in the first paragraph in Subsection A.

The requested changes have been made.

2. Please remove the word "*initial*" from the last paragraph in Subsection A. This conflicts with the renewal application referenced as received on July 1, 2002.

The requested change has been made.

3. Please remove Subsection D. in its entirety.

The requested change has been made.

Section III Comments:

4. Please add the following permitting note to condition A.1.:

{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.}

The requested change has been made.

5. Please remove the words "at a maximum consumption rate of 123 bbls/hr/turbine" as this is redundant of condition A.1. and not necessary here, or please add the following permitting note to condition A.3.:

{Permitting Note: The fuel consumption 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.}

No change will be made as a result of this request. Removal of the consumption rate would be a substantial change requiring a new public notice. The Permitting Note is not necessary.

6. Please add the following permitting note corresponding to permit condition A.5. to read:

{Permitting note: Unless otherwise specified, the averaging time for condition A.5. is based on the specified averaging time of the applicable test method.}

The requested change has been made.

7. Please add the words "or permittee", as noted below, in the language of permit condition A.9.

The permittee shall demonstrate compliance with the sulfur content limit with a fuel analysis provided by the vendor or permittee upon each fuel delivery.

The requested change has been made.

8. Please add the words "or permittee", as noted below, in the language of permit condition A.12.

The fuel sulfur content, percent by weight, provided by the vendor or permittee for each delivery of liquid fuels shall be evaluated using either ASTM D2622-94, ASTM D4294-90 (95), both ASTM D4057-88 and ASTM D129-9(95)1, or the latest edition(s).

The requested change has been made.

9. Please remove the words "provided however, operations do not exceed 100 percent of the maximum operation rate allowed by the permit" from condition A.13., as this language is beyond the scope of the language found in Rule 62-297.310 (2), F.A.C.

For consistency with the Rule and other permits, no change will be made as a result of this request.

10. Please modify the language in condition A.16., as noted below, to clarify the intent.

Visible Emissions Testing – Annual. By this permit, annual emissions compliance testing for visible emissions is only required for these emissions units if oil is consumed for more than 400 hours in a federal fiscal year. If required, testing shall be conducted no later than 90 days following the end of the federal fiscal year triggering this condition.

No change will be made as a result of this request. If this is only an occasional concern, arrangements can be made with the compliance office to complete the required test as soon as possible after the end of the federal fiscal year. If this is a widespread concern, the industry may consider initiating a Rule change.

11. Please insert the clarifying language “as defined in conditions A.7. and A.8.” to permit condition A.17. so that it reads:

In the case of excess emissions resulting from malfunctions, as defined in conditions A.7. and A.8., the owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

No change will be made as a result of this request. The addition of the requested language could potentially restrict other applicable requirements contained in the permit.

12. The closing bracket (“}”) in the permitting note in the description section of Subsection B. should be moved from the middle of the note to the end of the note.

The requested change has been made.

13. Please add the following permitting note to condition B.1.:

{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.}

The requested change has been made.

14. Please add the clarifying language “(CTs 7-10)” following the word “four” in the first sentence of condition B.3.b.

The requested change has been made.

15. Please modify the permitting note prior to condition B.6. to read:

{Permitting note: Unless otherwise specified, the averaging time for conditions B.6. – B.8. are based on the specified averaging time of the applicable test method.}

The requested change has been made.

16. Please modify condition B.7. and B.8. to clarify that the standards are based on a 24-hour block average.

The requested change has been made by the addition of following note placed after conditions B.7. and B.8.:
Note 2: *The NO_x emission limits are based on a 24-hour block average. See conditions B.41. & B.42.*

17. Please add a permitting note to condition B.9. referencing condition B.42., where additional authorized excess emissions are identified.

Based on this request, a parenthetical cross-reference has been added to condition B.9.

18. Please add a clarifying condition following condition B.29. similar to the following;

Visible Emissions Testing – Annual. By this permit, annual emissions compliance testing for visible emissions is only required for these emissions units if oil is consumed for more than 400 hours in a federal fiscal year. If required, testing shall be conducted no later than 90 days following the end of the federal fiscal year triggering this condition.

No change will be made as a result of this request. A relaxation of a testing requirement would be a substantial change requiring a new public notice.

19. Please remove “Table 297.310-1” from condition B.30. and return it to an attachment, as it has been in previous versions of the permit.

No change will be made as a result of this request. The Department does not wish to restructure/reformat the permit at this stage in the process.

20. Please add the clarifying language “as defined in conditions B.9., B.10. and B.42.” after the word “malfunction” in the first sentence of condition B.37.

No change will be made as a result of this request. The addition of the requested language could potentially restrict other applicable requirements contained in the permit.

21. Please replace the phrase “with the requirements previously specified in this permit” found in condition B.41.(d), with the phrase “with the requirements specified in condition B.42.”.

Rather than alter the noticed wording, conditions B.41. and B.42. have been switched in order to make the language more accurate.

22. The two references to a January date in the initial permitting note in Subsection C. should be “January 30, 2002”.

The requested change has been made.

23. In an effort to more closely track the language of the construction permit, please modify the language in condition C.4. to read as follows:

Operating Procedures. All operators and supervisors shall be properly trained to operate and maintain the combustion turbines and pollution control devices in accordance with the guidelines and procedures established by the equipment manufacture. The training shall include good operating practices as well as methods of minimizing excess emissions.

In order to reflect the requirements of permit number 0970014-006-AC, condition C.4. has been changed to read:

Operating Procedures: *The Best Available Control Technology (BACT) determinations established by this permit rely on “good operating practices” to minimize emissions. Therefore, all operators and supervisors shall be properly trained to operate and maintain the combustion turbines and pollution control devices in*

accordance with the guidelines and procedures established by each equipment manufacturer. The training shall include good operating practices as well as methods of minimizing excess emissions.
[Rules 62-4.070(3) & 62-212.400(BACT), F.A.C.; and, 0710002-006-AC]

24. Please modify the language in condition C.5. to read as follows. This removes the past-tense reference to requirements addressed in the construction permit.

Permitted Capacity: Each combustion turbine shall operate only in simple-cycle mode and generate a nominal 91 MW of electrical power. Operation of each unit shall not exceed 905 MMBtu per hour of heat input from firing natural gas or 978 MMBtu per hour of heat input from firing low sulfur distillate oil. Excluding startup and shutdown, operation below 50% base load is prohibited. The maximum heat inputs are based on the lower heating value (LHV) of each fuel, an inlet air temperature of 59°F, a relative humidity of 60%, an ambient air pressure of 14.7 psi, and 100% of base load. Therefore, heat input rates will vary depending upon ambient conditions and the combustion turbine characteristics. Manufacturer's performance curves, corrected for site conditions or equations for correction to other ambient conditions, shall be used to determine the heat input rate at other conditions.

In order to clarify this requirement, condition C.5. has been changed to read:

Permitted Capacity: Each combustion turbine shall operate only in simple-cycle mode and generate a nominal 91 MW of electrical power. Operation of each unit shall not exceed 905 MMBtu per hour of heat input from firing natural gas or 978 MMBtu per hour of heat input from firing low sulfur distillate oil. Excluding startup and shutdown, operation below 50% base load is prohibited. The maximum heat inputs are based on the lower heating value (LHV) of each fuel, an inlet air temperature of 59°F, a relative humidity of 60%, an ambient air pressure of 14.7 psi, and 100% of base load. Therefore, heat input rates will vary depending upon ambient conditions and the combustion turbine characteristics. Compliance shall be determined by data compiled from the Speedtronic™ Control System adjusted for these parameters. Manufacturer's performance curves, corrected for site conditions or equations for correction to other ambient conditions, shall have been provided to the Permitting and Compliance Authorities within 45 days of completing the initial compliance testing and shall be resubmitted at any time that they are changed as the result of new testing.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, 0970014-006-AC].

25. Please remove the second permitting note following condition C.5. as it is not correct. The operating rate during the compliance testing conducted on these units was within the permitted capacity. As noted in condition C.39., adjustments for temperature must be made to determine if the heat input at the test conditions is within the permitted capacity.

The requested change has been made.

26. Please modify the language in the permitting note prior to condition C.10. to read:

{Permitting note: Unless otherwise specified, the averaging time for conditions C.10. – C.15. are based on the specified averaging time of the applicable test method.}

The requested change has been made.

27. In order to remove historical requirements, please revise condition C.22. as follows:

Water Injection: To control NO_x emissions when firing low sulfur distillate oil, the permittee shall install, calibrate and operate an automated water injection system for each combustion turbine in accordance with the manufacturer's recommendations. Each water injection system shall be maintained and adjusted to minimize NO_x emissions.

The requested change has been made. The Department agrees that the deleted language was a requirement of the construction permit.

28. Please remove the phrase "Subject to EPA approval" found twice in condition C.25., as this is a historical reference and no longer needed.

The requested changes have been made.

29. Please correct the lettering used to identify the subsections of condition C.27.

The requested change has been made.

30. Please remove "Table 297.310-1" from condition C.41. and return it to an attachment, as it has been in previous versions of the permit.

No change will be made as a result of this request. The Department does not wish to restructure/reformat the permit at this stage in the process.

31. Please delete condition C.45., as it is redundant of condition C.42.8.

No change will be made to this condition in order to avoid a potential conflict with a specific requirement of the construction permit

32. Please add the clarifying language "as defined in conditions C.17. and C.18." after the word "malfunction" in the first sentence of condition C.50.

No change will be made as a result of this request. The addition of the requested language could potentially restrict other applicable requirements contained in the permit.

General Section III Comments:

33. For overall consistency, it is requested that all the NSPS (40 CFR Part 60) requirements applicable to Units 7-14 be removed from Subsections B. and C. and placed in a newly created Subsection D. -Common Requirements. This new subsection should list each of the applicable NSPS requirements along with appropriate permitting notes to clarify the current interpretation and intent of these conditions as they apply to modern combustion turbine units with continuous emissions monitors and/or dry low NO_x burners for NO_x control.

No change will be made as a result of this request. The Department does not wish to restructure/reformat the permit at this stage in the process.

Comments on Appendices:

34. Please remove Emissions Units -013 and -014 from Appendix U-1 and add the associated activities (Surface Coating and Solvent Cleaning and General Purpose Engines) to the list in Appendix I-1, as these activities meet the requirements of 62-213.439 (6)(b).

The requested changes have been made.

35. Please remove Emission Units -016 and -017 from Appendix U-1, as these activities do not exist at this facility and should not have been identified in previous permits.

The requested changes have been made.

Comments on Attachments:

36. Units 12 – 14 (E.U. ID Nos. -018, -019 and -020) information is missing from Tables 1-1 and 2-1.

The informational tables have been updated to reflect the new units.

III. Conclusion.

The enclosed PROPOSED Title V Air Operation Permit includes the aforementioned changes to the DRAFT Title V Air Operation Permit.

The permitting authority will issue the PROPOSED Permit Number 0970014-007-AV, with the changes noted above.

STATEMENT OF BASIS

PROPOSED Title V Air Operation Permit Renewal No.: 0970014-007-AV
Renewal of Title V Air Operation Permit No.: 0970014-001-AV
Florida Power Corporation
Intercession City Facility
Osceola County

The initial Title V Air Operation Permit, No. 0970014-001-AV, was issued/effective on December 31, 1997. Permit Revision, No. 0970014-002-AC, was issued on May 17, 1999. Permit Revision, No. 0970014-003-AC, was issued on December 9, 1999. Permit Revision, No. 0970014-004-AV, was issued on June 16, 2000. Permit Revision, No. 0970014-006-AC, was issued on January 30, 2002. This Title V Air Operation Permit Renewal is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213 and 62-214. The above named permittee is hereby authorized to operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

This facility consists of fourteen simple cycle combustion turbines (CT), 6 are pre-NSPS and 8 are NSPS Subpart GG sources. The six pre-NSPS turbines fire new No. 2 fuel oil having a maximum sulfur content of 0.5 percent, by weight. Each turbine has a maximum heat input of 708 MMBtu/hour and power a generator rated at 56.7 MW (megawatts of electricity). Emissions are not controlled and each turbine exhausts through a separate stack. These units are not subject to any federal requirements, NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines or Acid Rain. The above units began commercial service in 1974. The emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required. CTs 7 through 10 are GE PG7111(EA) units and CT 11 is a Siemens V84.3 unit with generator ratings of 92.9 megawatts/CT and 171 megawatts/CT, respectively. The GE CT's and the Siemens CT have a maximum heat input rating at 59° Fahrenheit (F) of 1048 and 1477 MMBtu/hour, respectively. NO_x and SO₂ emissions are controlled with water injection and burning new No. 2 low sulfur fuel oil, respectively. These combustion turbines exhaust through individual stacks. The GE units began commercial service in 1993 and the Siemens unit began commercial service in 1994. CTs 7 through 11 are regulated under Acid Rain, Phase II. CTs 7 through 11 are regulated under NSPS - 40 CFR 60, Subpart GG (Standards of Performance for Stationary Gas Turbines), which is adopted and incorporated by reference in Rule 62-204.800(7)(b), F.A.C. and a BACT determination, dated August 17, 1992. New Peaking Units P12, P13, and P14 - Each peaking unit consists of a General Electric Model No. PG7121 7EA dual-fuel simple cycle combustion turbine with electrical generator set having a nominal power production output of 91 MW. The units may employ an evaporative cooling system. Dry low-NO_x (DLN) combustion technology is used to control nitrogen oxide emissions when firing the primary fuel of pipeline natural gas. Water injection is used to control nitrogen oxide emissions when firing the backup fuel of low sulfur distillate oil. P12 - P14 are regulated under Acid Rain, Phase II.

CAM does not apply to the controlled units at this facility because the Acid Rain NO_x CEMS are being used for continuous compliance.

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

Based on the Title V Air Operation Permit Renewal application received July 1, 2002, this facility is not a major source of hazardous air pollutants (HAPs).

Florida Power / Progress Energy
Intercession City Facility
Facility ID No.: 0970014
Osceola County

Title V Air Operation Permit Renewal

PROPOSED Permit Project No.: 0970014-007-AV

Renewal of Title V Air Operation Permit No.: 0970014-001-AV

Permitting Authority:

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

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

Telephone: 850/488-0114
Fax: 850/922-6979

Title V Air Operation Permit Renewal
PROPOSED Permit No.: 0970014-007-AV

Table of Contents

Section	Page Number(s)
<u>Placard Page</u>	1
<u>I. Facility Information</u>	2
A. Facility Description.	
B. Summary of Emissions unit(s) with ID No(s).	
C. Relevant Documents	
<u>II. Facility-wide Conditions</u>	4
<u>III. Emissions Unit(s) and Conditions</u>	
A. Combustion Turbine Peaking Units (Pre-NSPS Sources, Units 1 - 6)	7
B. Combustion Turbines (NSPS Sources, Units 7 - 11)	12
C. Combustion Turbines (NSPS Sources, Units 18 - 20)	29
<u>IV. Acid Rain Part</u>	
A. Acid Rain, Phase II.....	49
Appendix I-1, List of Insignificant Emissions unit(s) and/or Activities	51
Appendix U-1, List of Unregulated Emissions unit(s) and/or Activities	52
APPENDIX H-1, Permit History/ID Number Changes	53
List of Referenced Attachments	54



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David B. Struhs
Secretary

Permittee:
Florida Power / Progress Energy
6525 Osceola Polk County Line Road
Intercession City, Florida 33848

PROPOSED Permit No.: 0970014-007-AV
Facility ID No.: 0970014
SIC Nos.: 49
Project: Title V Air Operation Permit Renewal

The purpose of this permit is to renew Title V Air Operation Permit, No. 0970014-001-AV, for the operation of the Intercession City Plant. This existing facility is located at 6525 Osceola Polk County Line Road, Intercession City, Osceola County.

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

Referenced attachments made a part of this permit:

Appendix U-1, List of Unregulated Emissions Unit(s) and/or Activities
Appendix I-1, List of Insignificant Emissions Units and/or Activities
APPENDIX TV-4, TITLE V CONDITIONS (version dated 02/12/02)
APPENDIX SS-1, STACK SAMPLING FACILITIES (version dated 10/07/96)
FIGURE 1 - SUMMARY REPORT-GASEOUS AND OPACITY EXCESS EMISSION AND
MONITORING SYSTEM PERFORMANCE REPORT (40 CFR 60; July, 1996)
Phase II Acid Rain Application/Compliance Plan received July 30, 2002.

Effective Date: January 1, 2003
Renewal Application Due Date: July 5, 2007
Expiration Date: December 31, 2007

Howard L. Rhodes, Director
Division of Air Resources
Management

HLR/sms/jh

Section I. Facility Information.

Subsection A. Facility Description.

The existing facility is an electric power generating plant consisting of fourteen combustion turbine peaking units (P1-P14). Units P1-P6 each consist of two gas turbines having a combined nominal generating capacity of 56.7 MW and firing No. 2 distillate oil. Units P7-P10 each consist of a General Electric Model 7EA gas turbine having a nominal generating capacity of 96.3 MW and firing natural gas or distillate oil. Unit P11 is a Siemens Model V84.3 having a nominal generating capacity of 171 MW and firing distillate oil. Units P12-P14 each consist of a General Electric Model 7EA gas turbine with a nominal generating capacity of 91 MW when firing natural gas or distillate oil. Also included in this permit are miscellaneous unregulated and insignificant emissions units and/or activities.

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

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

E.U. ID No.	Brief Description
-001 to -006	6 - Combustion Turbine Peaking Units (Pre-NSPS)
-007 to -011	5 - Combustion Turbines (NSPS)
-018 to -020	3 - Combustion Turbines (NSPS)

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

Subsection C. Relevant Documents.

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

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

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

Table 2-1, Summary of Compliance Requirements

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

Appendix H-1, Permit History/ID Number Changes

Statement of Basis

These documents are on file with the permitting authority:

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

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

Construction Permit (0970014-003-AC) To Install Three New Simple Cycle CTs (Units 018 – 020),
issued December 9, 1999.

Title V Permit Revision (0970014-004-AV) To Incorporate 0970014-002-AC,
Issued August 9, 2000.

Construction Permit Revision (0970014-006-AC) To Modify Units 018 – 020,
issued January 30, 2002.

Title V Air Operation Permit Renewal Application Received July 1, 2002.

Florida Power Letter Dated July 11, 2002.

Florida Power Letter Dated July 31, 2002.

Department's Request For Additional Information Dated August 13, 2002.

Florida Power Additional Information Response Letter Dated September 25, 2002.

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

1. APPENDIX TV-4, TITLE V CONDITIONS, is a part of this permit.
{Permitting note: APPENDIX TV-4, TITLE V CONDITIONS, is distributed to the permittee only.
Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}
2. **Not federally enforceable.** General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]
3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rule 62-296.320(4)(b)1. & 4., F.A.C.]
4. Prevention of Accidental Releases (Section 112(r) of CAA).
 - a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center
Post Office Box 3346
Merrifield, VA 22116-3346
Telephone: 703/816-4434
 - and,
 - b. The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.
[40 CFR 68]
5. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit.
[Rule 62-213.440(1), F.A.C.]
6. Insignificant Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.
[Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]

7. General Pollutant Emission Limiting Standards. Volatile Organic Compounds 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.

{Permitting Note: No vapor emission control devices or systems are deemed necessary nor ordered by the Department as of the issuance date of this permit.}

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

8. Not federally enforceable. Reasonable precautions should be taken to prevent emissions of unconfined particulate matter at this facility. Steps presently taken at the facility to minimize particulate emissions are as follows:

- ◆ Maintenance of paved areas as needed,
- ◆ Regular mowing of grass and care of vegetation,
- ◆ Limiting access to plant property by unnecessary vehicles, and
- ◆ Additional or alternative activities may be utilized to minimize unconfined particulate emissions.

[Rule 62-296.320(4)(c)2., F.A.C.; and, proposed by applicant in the Title V permit renewal application received July 1, 2002.]

{Permitting Note: Condition No. 8 implements the requirements of Rules 62-296.320(4)(c)1., 3., & 4., F.A.C., (see Condition No. 57. of Appendix TV-4).}

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

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

10. The permittee shall submit all compliance-related notifications and reports required of this permit to the Department's Central District office:

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

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

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

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

{Permitting Note: This condition implements the requirements of Rules 62-213.44(3)(a)2. & 3., F.A.C. (see condition No. 51. of Appendix TV-4, Title V Conditions).}

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

Section III. Emissions Unit(s) and Conditions.

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

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

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

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

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

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum heat input rate shall not exceed 708 MMBtu/hour/CT while firing new No. 2 fuel oil.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

{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.13.

A.3. Methods of Operation - Fuels. Only new No. 2 fuel oil having a maximum sulfur content of 0.5 percent, by weight, shall be fired in the turbines at a maximum consumption rate of 123 bbls/hr/turbine.
[Rules 62-4.160(2) and 62-213.440(1), F.A.C.; and, AO 49-176549.]

A.4. Hours of Operation. Each emissions unit may operate continuously, i.e., 8,760 hours/year/CT.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

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

A.5. 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 49-176549.]

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

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

Excess Emissions

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

A.7. Excess emissions from these emissions units resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.]

A.8. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.
[Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

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

A.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: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

A.11. The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.
[Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.]

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

A.13. Operating Rate During Testing.

Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity (i.e., at less than 90 percent of the maximum operation rate allowed by the permit); in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted, provided however, operations do not exceed 100 percent of the maximum operation rate allowed by the permit. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rule 62-297.310(2), F.A.C.]

A.14. Applicable Test Procedures.

(a) Required Sampling Time.

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

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

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

A.15. 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;

8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.

9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) 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]

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

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

Record keeping and Reporting Requirements

A.17. Malfunction Reporting. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

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

A.18. Test Reports.

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

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

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

Section III. Emissions Unit(s) and Conditions.

Subsection B. This section addresses the following emissions unit.

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

CTs. 7 through 10 are GE PG7111(EA) units and CT 11 is a Siemens V84.3 unit with generator ratings of 96.3 megawatts/CT and 171 megawatts/CT, respectively. The GE CT's and the Siemens CT have a maximum heat input rating at 59° Fahrenheit (F) of 1048 and 1477 MMBtu/hour, respectively. NO_x and SO₂ emissions are controlled with water injection and burning new No. 2 low sulfur fuel oil, respectively. The combustion turbines exhaust through individual stacks. The GE units began commercial service in August 1993 and the Siemens unit began commercial service in January 1997.

{Permitting note: CTs. 7 through 10 are regulated under Acid Rain, Phase II. All of the above CTs are regulated under; NSPS - 40 CFR 60, Subpart GG (Standards of Performance for Stationary Gas Turbines), which is adopted and incorporated by reference in Rule 62-204.800(7)(b), F.A.C.; a BACT determination (PSD-FL-180), dated August 17, 1992; and, Air Construction Permit No. 0970014-002-AC, issued May 17, 1999. For CTs 7 – 10: stack heights = 50 feet, exit diameters = 13.75, exit temperatures = 1,043 °F, and actual volumetric flow rates = 1,551,317 acfm. For CT 11: stack height = 75 feet, exit diameter = 19, exit temperature = 1,043 °F, and actual volumetric flow rates = 2,370,627 acfm.}

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

Essential Potential to Emit (PTE) Parameters

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

{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.28.

B.3. Methods of Operation.

- a. Fuels. Only natural gas or new No. 2 fuel oil having a maximum sulfur content of 1 grain per 100 dscf and 0.2% or less, by weight, respectively, shall be fired in these turbines at all times. To comply with the SO₂ allowable emissions of 222 lbs/hr/GE CT and 407 lbs/hr/Siemens CT, the fuel oil consumption is 150,770,250 gal./yr. (based on an average 7826 gal/hr/GE CT and an average 13,171 gal/hr/Siemens CT, a capacity factor of 38.7%, 59° F, a 7.1 lbs/gal density, a maximum 0.2% S content by wt., and peak load).
- b. Inlet Foggers. The inlet foggers installed at the compressor inlet to each of the four simple cycle combustion turbines (CTs 7-10) may operate up to 7,000 hours per year in aggregate (average 1,750 hours per unit per year).

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

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

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

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

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

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

Emission Limitations and Standards

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

{Permitting note: Unless otherwise specified, the averaging times for Specific Conditions B.6. – B.8. are based on the specified averaging time of the applicable test method.}

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

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

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

CT 7, 8, 9, & 10 Allowables				
Pollutant	Fuel	Standard	lbs/hr./CT	TPY
NO _x (See Note 2)	Gas	25 ppmvd @ 15% O ₂ - dry basis	107.00	725.46
	Oil	42 ppmvd @ 15% O ₂ - dry basis	182.00	1,233.96
SO ₂	Gas	1 grain/100 dscf	2.99	20.27
	Oil	New No. 2 F.O.- max. 0.2% S by wt.	222.00	1,505.16
PM/PM ₁₀	Gas		7.50	50.85
	Oil	0.01 lb/MMBtu	15.00	101.70
VOC	Gas		3.00	20.34
	Oil		5.00	33.90
CO	Gas		21.30	144.41
	Oil	25 ppmvd	54.00	366.12
H ₂ SO ₄	Gas		0.44	2.98
	Oil	New No. 2 F.O.- max. 0.2% S by wt.	18.00	122.04
Fluorides (FR)	Oil	New No. 2 F.O.- max. 0.2% S by wt.		
Mercury (Hg)	Oil	New No. 2 F.O.- max. 0.2% S by wt.		
Lead (Pb)	Oil	New No. 2 F.O.- max. 0.2% S by wt.		
Inorganic Arsenic	Oil	New No. 2 F.O.- max. 0.2% S by wt.		
Beryllium (Be)	Oil	New No. 2 F.O.- max. 0.2% S by wt.		
VE	Gas or	10% - Normal conditions at full load		
	Oil	20% - Exceptional conditions		

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

Note 2: The NO_x emission limits are based on a 24-hour block average. See conditions B.41. & B.42. [BACT dated August 10, 1995, and accepted by applicant in AC 49-203114/PSD-FL-180(A)]

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

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

CT 11 Allowables (continued)				
Pollutant	Fuel	Standard	lbs/hr.	TPY
H ₂ SO ₄	Gas		0.64	1.08
	Oil	New No. 2 F.O.- max. 0.2% S by weight	28.00	47.47
Fluorides (F)	Oil	New No. 2 F.O.- max. 0.2% S by weight		
Mercury (Hg)	Oil	New No. 2 F.O.- max. 0.2% S by weight		
Lead (Pb)	Oil	New No. 2 F.O.- max. 0.2% S by weight		
Inorganic Arsenic	Oil	New No. 2 F.O.- max. 0.2% S by weight		
Beryllium (Be)	Oil	New No. 2 F.O.- max. 0.2% S by weight		
VE	Gas or	10% - Normal conditions at full load		
	Oil	20% - Exceptional conditions		

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

Note 2: The NO_x emission limits are based on a 24-hour block average. See conditions **B.41.** & **B.42.** [BACT dated August 10, 1995, and accepted by applicant in AC 49-203114/PSD-FL-180(A)]

Excess Emissions

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

B.9. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for a longer duration. (See condition **B.41.**)
[Rule 62-210.700(1), F.A.C.]

B.10. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.
[Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

B.11. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
[40 CFR 60.11(d)]

B.12. Determination of Process Variables.

(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

B.13. The permittee shall operate a continuous monitoring system (CMS) to monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system shall be accurate to within ± 5.0 percent and shall be approved by the Administrator.

[40 CFR 60. 334(a)]

B.14. The permittee shall monitor sulfur content and nitrogen content of the new No. 2 fuel oil and sulfur content of natural gas. These values may be provided by the vendor and the frequency of determinations of these values shall be as follows:

A. New No. 2 Fuel Oil

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

B. Natural Gas

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

Custom Fuel Monitoring Schedule for Natural Gas (NG)

1. Monitoring of fuel nitrogen content shall not be required if NG is the only fuel being fired in the gas turbines.
2. Sulfur Monitoring
 - a. Analysis for fuel sulfur content of the natural gas shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are ASTM D1072-80, ASTM D3031-81, ASTM D3246-81, and ASTM D4084-82 as referenced in 40 CFR 60.335(b)(2), or the latest edition(s).
 - b. This custom fuel monitoring schedule shall become effective on the date this permit becomes valid. Effective the date of this custom schedule, sulfur monitoring shall be conducted twice monthly for six months. If this monitoring shows little variability in the fuel sulfur content, and indicates consistent compliance with 40 CFR 60.333 and the conditions of this permit, then sulfur monitoring shall be conducted once per quarter for six quarters. If monitoring data is provided by the applicant which demonstrates consistent compliance with the requirements

herein the applicant may begin monitoring as per the requirements of 2.c.

- c. If after the monitoring required in item 2.b. above, or herein, the sulfur content of the fuel shows little variability and, calculated as sulfur dioxide, represents consistent compliance with the sulfur dioxide emission limits specified under 40 CFR 60.333 and the conditions of this permit, sample analysis shall be conducted twice per annum. This monitoring shall be conducted during the first and third quarters of each calendar year.
 - d. Should any sulfur analysis as required in items 2.b. or 2.c. above indicate noncompliance with 40 CFR 60.333 and the conditions of this permit, the owner or operator shall notify the Department of such excess emissions and the custom schedule shall be re-examined by the Environmental Protection Agency. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
3. If there is a change in fuel supply, the owner or operator must notify the Department of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
 4. Records of sample analysis and fuel supply pertinent to this custom schedule shall be retained for a period of five years, and be available for inspection by personnel of federal, state, and local air pollution control agencies.
[40 CFR 60.334(b)(1) and (2); and, PSD-FL-180(A) amended December 15, 1997]

Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

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

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

B.16. The test method for sulfuric acid mist (H₂SO₄) emissions shall be EPA Method 8, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C. No. 2 fuel oil analysis using ASTM D4294-90, or the latest edition, may be used in lieu of EPA Method 8 for the determination of H₂SO₄ mist, only if compliance with the permit allowable for the sulfur content in the No. 2 fuel oil fired at the facility has been demonstrated.

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

B.17. The test method for visible emissions (VE) shall be EPA Method 9, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C.

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

B.18. The test method for carbon monoxide (CO) emissions shall be EPA Method 10, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C.
[Rules 62-204.800 and 62-297.401, F.A.C.; and, AC 49- 203114/PSD-FL-180(A)]

B.19. The test method for nitrogen oxide (NO_x), sulfur dioxide (SO₂), and diluent shall be EPA Method 20, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C.
[Rules 62-204.800 and 62-297.401, F.A.C.; and, AC 49- 203114/PSD-FL-180(A)]

B.20. The test method for volatile organic compound (VOC) emissions shall be EPA Method 25A, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C. If compliance with the CO allowables in this permit is demonstrated, testing for VOCs using EPA Method 25A is not required.
[Rules 62-204.800 and 62-297.401, F.A.C.; and, AC 49- 203114/PSD-FL-180(A)]

B.21. A compliance test for Fluorides, Mercury, Lead, Inorganic Arsenic, and Beryllium, is not required as long as new No. 2 fuel oil is fired.
[AC 49-203114/PSD-FL-180(A)]

B.22. The permittee shall comply with the stack sampling requirements contained in Appendix SS-1, Stack Sampling Facilities (attached).
[Rule 62-297.310(6), F.A.C.]

B.23. To compute the nitrogen oxide emissions, the permittee shall use analytical methods and procedures that are accurate to within ±5 percent and are approved by the Administrator to determine the nitrogen content of the fuel being fired.
[40 CFR 60.335(a)]

B.24. The following shall only be used by the permittee to demonstrate compliance with the nitrogen oxides and sulfur dioxide standards in 40 CFR 60.332 and 40 CFR 60.333:

a. The nitrogen oxides emission rate (NO_x) shall be computed for each run using the following equation:

$$NO_x = (NO_{x0}) (P_r/P_o)^{0.5} e^{19(H_o - 0.00633)} (288^\circ K/T_a)^{1.53}$$

where:

NO_x = emission rate of NO_x at 15 percent O₂ and ISO standard ambient conditions, volume percent.

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

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

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

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

e = transcendental constant, 2.718.

T_a = ambient temperature, °K.

b. Testing to establish compliance with the NO_x limit shall be done at capacity, as defined in condition B.28. If testing demonstrates NO_x emissions in excess of the allowable, set forth in this permit when operating at capacity, the following shall apply:

1. The monitoring device of 40 CFR 60.334(a) shall be used to determine the fuel consumption and

the water-to-fuel ratio necessary to comply with 40 CFR 60.332 at 30, 50, 75, and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacture.

- c. EPA Method 20 (40 CFR 60, Appendix A) shall be used to determine the nitrogen oxides, sulfur dioxide, and oxygen concentrations. The span values shall be 300 ppm of nitrogen oxide and 21 percent oxygen. The NO_x emissions shall be determined at each of the load conditions specified in specific condition b. above.

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

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

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

[40 CFR 60.335(d)]

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

[40 CFR 60.335(e)]

B.27. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

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

B.28. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity as defined below. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity, in which case subsequent emissions unit operations are limited to 110 percent of the test load until a new test is conducted. Once

the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. The permitted capacity shall at no time be exceeded. Capacity is defined as 90 to 100 percent of the manufacturer's rated heat input achievable for the average ambient (or conditioned) air temperature during the test. If it is impracticable to test at capacity, an emissions unit may be tested at less than capacity. In such cases, the entire heat input vs. inlet temperature curve will be adjusted by the increment equal to the difference between the design heat input value and 110 percent of the value reached during the test. Data, average ambient temperature during the test, capacity vs. ambient temperature curves, and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department with the compliance test report. In no case shall a maximum heat input of 1144 MMBtu/ hr/GE CT at 20° F during peak loading and 2032 MMBtu/ hr/Siemens CT at 20° F during peak loading be exceeded. [Rule 62.297.310(2), F.A.C.; and, AC 49-203114/PSD-FL-180(A)]

B.29. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

3. The owner or operator of an emissions unit that is subject to any emission-limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300 (2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
 - a. Did not operate; or
 - b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours.
4. During each federal fiscal year (October 1 – September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
 - a. Visible emissions;
 - b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; or 100 tons per year or more of any other regulated air pollutant.
8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operating permit.
9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

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

(c) 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, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

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

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

B.30. Applicable Test Procedures.

(a) Required Sampling Time.

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

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

- a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
- b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission-limiting standard.
- c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

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

(c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, CALIBRATION SCHEDULE.

(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

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

**TABLE 297.310-1
 CALIBRATION SCHEDULE**

<u>ITEM</u>	<u>TOLERANCE</u>	<u>MINIMUM CALIBRATION FREQUENCY</u>	<u>REFERENCE INSTRUMENT</u>
Liquid in glass thermometer	Annually	ASTM Hg in glass	+/-2% ref. Thermometer or equivalent, or thermometric points
Bimetallic thermometer	Quarterly	Calib. Liq. In	5 degrees F glass thermometer
Thermocouple	Annually	ASTM Hg in glass	5 degrees F ref. Thermometer, NBS calibrated reference and potentiometer
Barometer	Monthly	Hg barometer or NOAA station	+/-1% scale
Pitot Tube	When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Fig. 2-2 & 2-3
Probe Nozzles	Before each test or when nicked, dented, or corroded	Micrometer	+/-0.001" mean of at least three readings Max. deviation between readings .004"
Dry Gas Meter and Orifice Meter	1. Full Scale: When 5% change observed, Annually 2. One Point: Semiannually 3. Check after each test series	Spirometer or When received, wet test or dry gas test meter	2% calibrated
		Comparison check	5%

B.31. Test Reports.

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

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission-limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The

owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.
[Rules 62-213.440 and 62-297.310(8), F.A.C.]

Recordkeeping and Reporting Requirements

B.32. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
[40 CFR 60.7(b)]

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

- (1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
 - (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.
 - (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
 - (4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.
- [40 CFR 60.7(c)(1), (2), (3), and (4)]

B.34. The summary report form shall contain the information and be in the format shown in Figure 1 (attached) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

- (1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.
- (2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

{See attached Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance}

[40 CFR 60.7(d)(1) and (2)]

B.35. Frequency of Reporting:

(1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;

(ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in 40 CFR 60, Subpart A, and the applicable standard; and

(iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in 40 CFR 60.7(e)(2).

(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in 40 CFR 60.7(e)(1) and (e)(2).

[40 CFR 60.7(e)(1)]

B.36. The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least five years following the date of such measurements, maintenance, reports, and records.

[Rule 62-213.440(1)(b), F.A.C.; and, 40 CFR 60.7(f)]

B.37. In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
[Rule 62-210.700(6), F.A.C.]

B.38. For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as follows:

a. Nitrogen oxides. Any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with the applicable requirements in 40 CFR 60.332 by the performance test required in 40 CFR 60.8 or any period during which the fuel-bound nitrogen of the fuel is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the performance test required in 40 CFR 60.8. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, gas turbine load, and nitrogen content of the fuel during the period of excess emissions, and the graphs or figures developed under 40 CFR 60.335(a).

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

b. Sulfur dioxide. Any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.2 percent, by weight, pursuant to the BACT.
[40 CFR 60.334(c)(1) & (2); Rule 212.400(6), F.A.C.; and, BACT dated December 14, 1992]

NSPS Common Condition

B.39. No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.
[40 CFR 60.12]

Continuous Monitoring Requirements

B.40. Use of NO_x CEMS For Continuous Compliance. Pursuant to 40 CFR 64.2(b)(1)(vi), the applicant has elected to use the existing certified Acid Rain NO_x continuous emissions monitors for continuous compliance in order to be exempted from the Compliance Assurance Monitoring (CAM) requirements contained in 40 CFR 64. Use of the NO_x CEMS for continuous compliance purposes is subject to the requirements contained in Specific Conditions **B.41.** – **B.43.**

B.41. Alternate Standards and NO_x CEMS Data Exclusion: The following permit conditions establish alternate standards or allow the exclusion of monitoring data for specifically defined periods of startup, shutdown, and documented malfunction of a gas turbine. These conditions apply only if operators employ the best operational practices to minimize the amount and duration of emissions during such episodes. For the following identified operational periods, 1-hour NO_x emissions rate values may be excluded from the 24-hour block compliance averages in accordance with the corresponding requirements.

- (1) Startup, Shutdown, and Malfunction: No more than 1 hourly emission rate value due to startup shall be excluded per cycle. No more than 1 hourly emission rate value due to shutdown shall be excluded per cycle. No more than 2 hourly emission rate values shall be excluded in a 24-hour period due to malfunction. No more than 4 hourly emission rate values shall be excluded in a 24-hour period due to all startups, shutdowns, and malfunctions. Note: A fuel-switch is not considered "startup".
- (2) Tuning: If the permittee provides at least five days advance notice prior to a major tuning session performed by the manufacturer's representative, hourly NO_x emissions rate values during tuning may be excluded from the 24-hour block compliance averages. Data excluded due to tuning shall not count towards the limit on total excluded data in a 24-hour period. {Permitting Note: As an example, a major tuning session would occur after a combustor change-out. A tuning session may take a several hours each day over a few days. No more than two major tuning sessions would be expected during any year. Major tuning sessions are intended to return the unit to manufacturer's specifications for efficient operation and should result in lower actual emissions.}

[Rules 62-4.130 & 62-210.700(5); and, Applicant Request Dated September 25, 2002.]

B.42. NO_x CEMS Requirements: For each gas turbine, the permittee shall keep calibrated, maintain, and operate continuous emissions monitors (CEMS) to measure and record emissions of nitrogen oxides (NO_x) and oxygen (O₂) in a manner sufficient to demonstrate compliance with the standards of this permit. A monitor for carbon dioxide (CO₂) may be used in place of the oxygen monitor, but the system shall be capable of correcting the emissions to 15% oxygen.

- (a) **Performance Specifications.** Each monitor shall be installed in a location that will provide emissions measurements representative of actual stack emissions. Each CEMS shall comply with the corresponding performance specifications that identify location, installation, design, performance, and reporting requirements.
 - (1) Each NO_x monitor shall be certified pursuant to 40 CFR Part 75 and shall be operated and maintained in accordance with the applicable requirements of 40 CFR Part 75, Subparts B and C. Record keeping and reporting shall be conducted pursuant to 40 CFR Part 75, Subparts F and G. The RATA tests required for the NO_x monitor shall be performed using EPA Method 7E or 20 as defined in Appendix A of 40 CFR 60. The NO_x monitor shall have dual span capability with a low span (gas) no greater than 30 ppmvd corrected to 15% O₂ and a high span (oil) no greater than 200 ppmvd corrected to 15% O₂.
 - (2) Each O₂ (or CO₂) CEMS shall comply with Performance Specification 3 in Appendix B of 40 CFR 60. The O₂ reference method for the annual RATA shall be EPA Method 3A Appendix A of 40 CFR 60.
- (b) **Data Collection.** Each CEMS shall be designed and operated to sample, analyze, and record emissions data evenly spaced over a 1-hour period during all periods of operation. Each 1-hour average shall be computed using at least one data point in each fifteen-minute quadrant of the 1-hour block during which the unit combusted fuel. Notwithstanding this requirement, each 1-hour average shall be computed from at least two data points separated by a minimum of 15 minutes. All valid measurements or data points collected during a 1-hour block shall be used to calculate the 1-hour emission averages. If the NO_x CEMS measures concentration on a wet basis, the permittee shall use approved methods for correction of measured emissions to a dry basis (0% moisture). The O₂ (or CO₂) CEMS shall express the 1-hour emission rate values in terms of "percent oxygen by volume". The NO_x CEMS shall express the 1-hour emission averages in terms of "ppmvd corrected to 15% oxygen".

- (c) **Compliance Averages.** Compliance with the 24-hour block NO_x emissions standards shall be based on data collected by each required CEMS. The 24-hour block shall start at midnight of each operating day and consist of 24 consecutive 1-hour blocks. For purposes of determining compliance with the emission standards of this permit, missing data shall not be substituted. Instead the 24-hour block average shall be determined using the remaining hourly data in the 24-hour block. If a unit operates continuously throughout the day, the 24-hour block average shall be the average of 24 consecutive 1-hour emission averages. If a unit operates less than 24 hours during the day, the 24-hour block average shall be the average of the available valid 1-hour emission averages collected during actual operation. If monitoring data is authorized for exclusion (due to startup, shutdown, malfunction, or tuning), the 24-hour block average shall be the average of the remaining valid 1-hour emission averages collected during actual operation. In cases of reduced operation or data exclusion, the compliance average will be based on less than 24, 1-hour emission averages. Upon completion of each 24-hour block, the permittee shall determine separate compliance averages for gas firing and oil firing. A 1-hour emissions average that includes any amount of oil firing shall only be included in the compliance average for oil firing. Upon a request from the Department, the NO_x emission rate shall be corrected to ISO conditions to demonstrate compliance with the applicable standards of 40 CFR 60.332.
- (d) **Data Exclusion.** Except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, each CEMS shall record emissions data at all times including episodes of startup, shutdown, and malfunction. Emissions data recorded during periods of startup, shutdown, or malfunction may only be excluded from the compliance averages in accordance with the requirements previously specified in this permit. To the extent practicable, the permittee shall minimize the duration of data excluded for startup, shutdown and malfunctions. Data recorded during startup, shutdown or malfunction shall not be excluded if the episode was caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented. Best operational practices shall be used to minimize hourly emissions that occur during startup, shutdown and malfunction. Emissions of any quantity or duration that occur entirely or in part from poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented, shall be prohibited. Excluded emissions data shall be summarized in the required quarterly report.
- (e) **Reporting:** If a CEMS reports NO_x emissions in excess of a standard, the permittee shall notify the Compliance Authority within one working day with a preliminary report of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Compliance Authority may request a written summary report of the incident.
- (f) **Monitor Availability.** Monitor availability shall not be less than 95% in any calendar quarter. In the event 95% availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving 95% availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit.

[Rules 62-204.800, 62-210.700, 62-4.130, 62-4.160(8), F.A.C.; 40 CFR 60.7; and, Applicant Request Dated September 25, 2002.]

B.43. Annual Tests Required. If conducted at permitted capacity, the annual NO_x continuous monitor RATA required pursuant to 40 CFR 75 may be substituted for the annual compliance stack test. [Applicant Request Dated September 25, 2002.]

Section III. Emissions Unit(s) and Conditions.

Subsection C. This section addresses the following emissions unit.

E.U. ID No.	BRIEF DESCRIPTION
-018 to -020	Combustion Turbine Units CT 12, CT 13 & CT 14

Each gas turbine consists of a General Electric Model No. PG7121 (7EA) dual-fuel, simple-cycle combustion turbine with electrical generator set. Each unit has a nominal power production capacity of 91 MW. These units may employ an evaporative cooling system.

{Permitting notes: These units began commercial operation during 2001. CT's. 12, 13 and 14 are regulated under Acid Rain, Phase II. In addition, these CT's are regulated under; NSPS – 40 CFR 60, Subpart GG (Standards of Performance for Stationary Gas Turbines), which is adopted and incorporated by reference in Rule 62-204.800(7)(b), F.A.C.; a BACT determination (PSD-FL-268A), dated January 30, 2002; and, Air Construction Permit No. 0970014-006-AC, issued January 30, 2002. The Subpart GG requirement to correct test data to ISO conditions applies. However, such correction is not required to demonstrate compliance with non-NSPS permit standard(s). Stack heights = 56 feet, exit diameters = 16.1 feet, exit temperatures = 993 °F, actual volumetric flow rates = 1,436,310 acfm. Dry low-NO_x (DLN) combustion technology is used to control nitrogen oxide emissions when firing the primary fuel of pipeline natural gas. Water injection is used to control NO_x emissions when firing low sulfur distillate oil as a backup fuel. Combustion design and clean fuels will minimize emissions of CO, PM/PM₁₀, SAM, SO₂, and VOC.}

General

C.1. Definitions. For the purposes of Rule 62-204.800(7), F.A.C., the definitions contained in the various provisions of 40 CFR 60 shall apply except that the term "Administrator" when used in 40 CFR 60, shall mean the Secretary or the Secretary's designee.
[40 CFR 60.2; Rule 62-204.800(7)(a), F.A.C.]

C.2. Circumvention.

- (a) No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.
- (b) The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly.

[40 CFR 60.12; and, Rule 62-210.650, F.A.C.]

C.3. Modifications. Except as provided under 40 CFR 60.14(e) and (f), any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 11

of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.
[40 CFR 60.14(a)]

C.4. Operating Procedures: The Best Available Control Technology (BACT) determinations established by this permit rely on "good operating practices" to minimize emissions. Therefore, all operators and supervisors shall be properly trained to operate and maintain the combustion turbines and pollution control devices in accordance with the guidelines and procedures established by each equipment manufacturer. The training shall include good operating practices as well as methods of minimizing excess emissions.

[Rules 62-4.070(3) & 62-212.400(BACT), F.A.C.; and, 0710002-006-AC]

{Permitting Note: In addition to the requirements listed below, these emissions units are also subject to the standards and requirements contained in the Acid Rain Part of this permit (see Section IV).}

Essential Potential to Emit (PTE) Parameters

C.5. Permitted Capacity: Each combustion turbine shall operate only in simple-cycle mode and generate a nominal 91 MW of electrical power. Operation of each unit shall not exceed 905 MMBtu per hour of heat input from firing natural gas or 978 MMBtu per hour of heat input from firing low sulfur distillate oil. Excluding startup and shutdown, operation below 50% base load is prohibited. The maximum heat inputs are based on the lower heating value (LHV) of each fuel, an inlet air temperature of 59°F, a relative humidity of 60%, an ambient air pressure of 14.7 psi, and 100% of base load. Therefore, heat input rates will vary depending upon ambient conditions and the combustion turbine characteristics. Compliance shall be determined by data compiled from the Speedtronic™ Control System adjusted for these parameters. Manufacturer's performance curves, corrected for site conditions or equations for correction to other ambient conditions, shall have been provided to the Permitting and Compliance Authorities within 45 days of completing the initial compliance testing and shall be resubmitted at any time that they are changed as the result of new testing.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, 0970014-006-AC].

{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.6. Simple Cycle Operation Only: The combustion turbines shall operate only in simple cycle mode. This requirement is based on the permittee's request, which formed the basis of the NO_x BACT determination and resulted in the emission standards specified in this permit. Specifically, the NO_x BACT determination eliminated several control alternatives based on technical considerations and costs due to the elevated temperatures of the exhaust gas. Any request to convert these units to combined

cycle operation by installing a new heat recovery steam generator or connecting to an existing heat recovery steam generator shall require the permittee to perform a new, current NO_x BACT analysis and the approval of the Department through a permit modification. The results of this analysis may validate the initial BACT determination or result in the submittal of a full PSD permit application, new control equipment, and new emissions standards.

[Rule 62-212.400(6)(b), F.A.C.; and, 0970014-006-AC.]

C.7. Emissions Unit Operating Rate Limitation After Testing. See specific condition **C.39**.
[Rule 62-297.310(2), F.A.C.]

C.8. Methods of Operation – Allowable Fuels: Each combustion turbine shall be fired by pipeline natural gas containing no more than 1 grain of sulfur per 100 dry standard cubic feet of gas. As a backup fuel, each combustion turbine may be fired with No. 2 distillate oil (or a superior grade) containing no more than 0.05% sulfur by weight. Each unit shall be capable of firing natural gas. Compliance with the limits on fuel sulfur content shall be demonstrated by the record keeping requirements and/or the conditions of the Alternate Monitoring Plan specified in this permit. It is noted that these limitations are much more stringent than the NSPS sulfur dioxide limitation and assure compliance with 40 CFR 60.333 and 60.334.

[Rules 62-4.070, F.A.C., 62-210.200, F.A.C. (Definitions – Potential Emissions), & 62-213.410, F.A.C.; Chapters 62-210 & 62-212, F.A.C.; 0970014-006-AC; and, Applicant Request]

- C.9. Hours of Operation:** The following limits apply to this group of three combustion turbines.
- (a) **Installation of One Gas Turbine:** When one gas turbine is installed, the total turbine operating hours shall not exceed 3390 hours during any consecutive 12 months.
 - (b) **Installation of Two Gas Turbines:** When two gas turbines are installed, the total turbine operating hours shall not exceed 6780 hours during any consecutive 12 months.
 - (c) **Installation of Three Gas Turbines:** When all three gas turbines are installed, the total turbine operating hours shall not exceed 10,170 hours during any consecutive 12 months.
 - (d) **Oil Firing:** Each gas turbine is limited to no more than 1000 turbine operating hours of oil firing during any consecutive 12 months. In addition, the group of three gas turbines is limited to no more than 2500 turbine operating hours of oil firing during any consecutive 12 months.

Total turbine operating hours are the sum of operating hours when firing gas and operating hours when firing oil. The permittee shall install, calibrate, operate and maintain meters to measure and accumulate the amount of each fuel fired and hours of operation for each combustion turbine.

[Rules 62-210.200, F.A.C. (Definitions – Potential Emissions) & 62-212.400(BACT); 0970014-006-AC; and, applicant request.]

Emission Limitations and Standards

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

{Permitting note: Unless otherwise specified, the averaging times for Specific Conditions C.10. – C.15. are based on the specified averaging time of the applicable test method.}

C.10. Emissions Standards Summary: The following table summarizes the emissions standards specified in this permit.

<i>EU-018, 019, and 020: GE Model 7EA Combustion Turbines (P12, P13, and P14)</i>		
Pollutant	Fuels and Controls^a	Emission Standards^b
CO	Gas Firing W/DLN	20.0 ppmvd @ 15% O ₂ , 3-hour test avg. 43.0 pounds per hour, 3-hour test avg.
	Oil Firing W/Wet Injection	20.0 ppmvd @ 15% O ₂ , 3-hour test avg. 44.0 pounds per hour, 3-hour test avg.
NO _x	Gas Firing W/DLN Compliance by Annual Testing at Base Load	9.0 ppmvd @ 15% O ₂ , 3-hour test avg. 33.0 pounds per hour, 3-hour test avg.
	Continuous Compliance by CEM	10.0 ppmvd @ 15% O ₂ , 24-hour avg.
	Oil Firing W/Wet Injection Compliance by Annual Testing at Base Load	42.0 ppmvd @ 15% O ₂ , 3-hour test avg. 169.0 pounds per hour, 3-hour test avg.
	Continuous Compliance by CEM	42.0 ppmvd @ 15% O ₂ , 24-hour avg.
PM/PM ₁₀	Fuel Sulfur Specifications and Combustion Design	Visible emissions ≤ 10% opacity (PM estimated at 0.002 grains/dscf)
SAM/SO ₂	Natural Gas Sulfur Specification	≤ 1 grain per 100 SCF of gas
	Low Sulfur Distillate Oil Sulfur Specification	0.05% sulfur by weight
VOC	Gas Firing W/Combustion Design	2.0 ppmvw as methane 2.0 pounds per hour
	Oil Firing W/Combustion Design	4.0 ppmvw as methane 5.0 pounds per hour

^a Oil firing is limited to 1000 hours per year per gas turbine and 2500 hours per year for all three gas turbines combined. DLN means dry low-NO_x controls.

^b The mass emission limits (pounds per hour) were based on 100% base load, 59° F, and 60% relative humidity.

[Design; Rules 62-4.070(3) & 62-212.400(BACT), F.A.C.; and 0970014-006-AC.]

C.11. Carbon Monoxide (CO)

- (a) **Gas Firing:** When firing natural gas in a combustion turbine, CO emissions shall not exceed 43.0 pounds per hour nor 20.0 ppmvd corrected to 15% oxygen based on a 3-hour test average.
- (b) **Oil Firing:** When firing low sulfur distillate oil in a combustion turbine, CO emissions shall not exceed 44.0 pounds per hour nor 20.0 ppmvd based on a 3-hour test average.

The permittee shall demonstrate compliance with these standards by conducting tests in accordance with EPA Method 10 and the performance testing requirements of this permit.

[Design; Rule 62-212.400(BACT), F.A.C.; and, 0970014-006-AC.]

C.12. Nitrogen Oxides (NO_x)

- (a) **Gas Firing:** When firing natural gas in a combustion turbine, NO_x emissions shall not exceed 33.0 pounds per hour nor 9.0 ppmvd corrected to 15% oxygen based on an annual 3-hour compliance test average. In addition, NO_x emissions shall not exceed 10.0 ppmvd corrected to 15% oxygen based on a 24-hour block average of all valid data collected from the continuous NO_x emissions monitor during actual operation.
- (b) **Oil Firing:** When firing low sulfur distillate oil in a combustion turbine, NO_x emissions shall not exceed 169.0 pounds per hour nor 42.0 ppmvd corrected to 15% oxygen based on an annual 3-hour compliance test average. In addition, NO_x emissions shall not exceed 42.0 ppmvd corrected to 15% oxygen based on a 24-hour block average of all valid data collected from the continuous NO_x emissions monitor during actual operation. The permittee shall set up the automated control system for water injection to reduce NO_x emissions below 42.0 ppmvd corrected to 15% oxygen.

NO_x emissions are defined as emissions of oxides of nitrogen measured as NO₂. The permittee shall demonstrate compliance by conducting tests in accordance with EPA Methods 7E, 20 and the performance testing requirements of this permit. Compliance with the 24-hour block averages shall be demonstrated by collecting and reporting data in accordance with the conditions for the NO_x continuous emissions monitor specified by this permit.

[Rule 62-212.400(BACT), F.A.C.; and, 0970014-006-AC.]

C.13. Fuel Sulfur:

- (a) **Gas Firing:** Natural gas shall contain no more than 1 grain of sulfur per hundred standard cubic feet.
- (b) **Oil Firing:** Distillate fuel oil shall contain no more than 0.05% sulfur, by weight.
- (c) **All Fuels:** No owner or operator subject to the provisions of 40 CFR 60.333 shall burn in any stationary gas turbine any fuel which contains sulfur in excess of 0.8 percent.
- (d) Compliance with Specific Conditions C.13.a. & b. assures compliance with the NSPS limit contained in Specific Condition C.13.(c)

[0970014-006-AC.]

C.14. Particulate Matter (PM/PM₁₀), Sulfuric Acid Mist (SAM) and Sulfur Dioxides (SO₂): Emissions of PM, PM₁₀, SAM, and SO₂ shall be limited by the good combustion techniques and the fuel sulfur limitations specified in this permit. The permittee shall demonstrate compliance with the fuel sulfur limits by maintaining records of the sampling and analysis required by this permit and/or as specified in the provisions of the Alternate Monitoring Plan.

[Rule 62-212.400(BACT), F.A.C.; and, 0970014-006-AC.]

C.15. Volatile Organic Compounds (VOCs).

- (a) **Gas Firing:** When firing natural gas in a combustion turbine, VOC emissions shall not exceed 2.0 pounds per hour nor 2.0 ppmvd based on a 3-hour test average.
- (b) **Oil Firing:** When firing low sulfur distillate oil in a combustion turbine, VOC emissions shall not exceed 5.0 pounds per hour nor 4.0 ppmvd based on a 3-hour test average.

The VOC emissions shall be measured and reported as methane. The permittee shall demonstrate compliance with these standards by conducting tests in accordance with EPA Methods 18, 25, and/or 25A and the performance testing requirements of this permit.

[Rule 62-4.070(3), F.A.C.; and, 0970014-006-AC.]

C.16. Visible Emissions. As a surrogate for PM/PM₁₀ emissions, visible emissions from the operation of a combustion turbine shall not exceed 10% opacity, based on a 6-minute average. The permittee shall demonstrate compliance with this standard by conducting tests in accordance with EPA Method 9 and the performance testing requirements of this permit.
[Rule 62-212.400(BACT), F.A.C.; and, 0970014-006-AC.]

Excess Emissions

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

C.17. Excess Emissions Prohibited: 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. Such preventable emissions shall be included in the calculation of the 24-hour averages compiled by the continuous NO_x emissions monitor.
[Rule 62-210.700(4), F.A.C.]

C.18. Alternate Standards and NO_x CEMS Data Exclusion: The following permit conditions establish alternate standards or allow the exclusion of monitoring data for specifically defined periods of startup, shutdown, and documented malfunction of a gas turbine. These conditions apply only if operators employ the best operational practices to minimize the amount and duration of emissions during such episodes.

- (a) **Opacity:** During startup and shutdown, visible emissions excluding water vapor shall not exceed 20% opacity for up to 2.0 hours in any 24-hour period.
- (b) **NO_x CEMS Data Exclusion:** For the following identified operational periods, 1-hour NO_x emissions rate values may be excluded from the 24-hour block compliance averages in accordance with the corresponding requirements.
 - (1) **Startup, Shutdown, and Malfunction:** No more than 1 hourly emission rate value due to startup shall be excluded per cycle. No more than 1 hourly emission rate value due to shutdown shall be excluded per cycle. No more than 2 hourly emission rate values shall be excluded in a 24-hour period due to malfunction. No more than 4 hourly emission rate values shall be excluded in a 24-hour period due to all startups, shutdowns, and malfunctions. Note: A fuel-switch is not considered "startup".
 - (2) **Tuning:** If the permittee provides at least five days advance notice prior to a major tuning session performed by the manufacturer's representative, hourly NO_x emissions rate values during tuning may be excluded from the 24-hour block compliance averages. Data excluded due to tuning shall not count towards the limit on total excluded data in a 24-hour period. {Permitting Note: As an example, a major tuning session would occur after a combustor change-out. A tuning session may take a several hours each day over a few days. No more than two major tuning sessions would be expected during any year. Major tuning sessions are intended to return the unit to manufacturer's specifications for efficient operation and should result in lower actual emissions.}

As provided by the authority in Rule 62-210.700(5), F.A.C., the above requirements are established in lieu of the provisions of Rule 62-210.700(1), F.A.C.

[Rules 62-4.130, 62-210.700(5) & 62-212.400(BACT), F.A.C.; and, 0970014-006-AC.]

Emissions Controls

C.19. Automated Control System: In accordance with the manufacturer's recommendations, the permittee shall install, calibrate, tune, operate, and maintain the General Electric Speedtronic™ Gas Turbine Control System for each unit. Each system shall be designed and operated to monitor and control the gas turbine combustion process and operating parameters including, but not limited to: fuel distribution and staging, turbine speed, load conditions, combustion temperatures, water injection, and fully automated startup, shutdown, and cool-down.
[Design; Rules 62-4.070(3) & 62-212.400(BACT), F.A.C.; and, 0970014-006-AC.]

C.20. Combustion Controls: The permittee shall employ "good operating practices" in accordance with the manufacturer's recommended operating procedures to control CO, NO_x, and VOC emissions. Prior to the initial emissions performance tests, the dry low-NO_x (DLN) combustors and Speedtronic™ control system on each gas turbine shall be tuned to optimize the reduction of CO, NO_x, and VOC emissions. Thereafter, these systems shall be maintained and tuned, as necessary, to minimize pollutant emissions.
[Design; Rules 62-4.070(3) & 62-212.400(BACT), F.A.C.; and, 0970014-006-AC.]

C.21. DLN Combustion Technology: To control NO_x emissions when firing natural gas, the permittee shall install, tune, operate and maintain a dry low-NO_x (DLN) combustion system for each combustion turbine in accordance with the manufacturer's recommendations. The permittee shall provide manufacturer's emissions performance versus load diagrams for the specific DLN system as part of the Title V permit application. Compliance with this requirement may be demonstrated by compiling data during the initial NSPS tests performed at various load conditions.
[Design; Rules 62-4.070(3) & 62-212.400(BACT), F.A.C.; and, 0970014-006-AC.]

C.22. Water Injection: To control NO_x emissions when firing low sulfur distillate oil, the permittee shall install, calibrate and operate an automated water injection system for each combustion turbine in accordance with the manufacturer's recommendations. Each water injection system shall be maintained and adjusted to minimize NO_x emissions.
[Design; Rules 62-4.070(3) & 62-212.400(BACT), F.A.C.; and, 0970014-006-AC.]

Monitoring of Operations

C.23. At all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
[40 CFR 60.11(d)]

C.24. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG shall monitor sulfur content and nitrogen content of the fuel being fired in the turbine. The frequency of determination of these values shall be as follows:
(1) If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source.

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

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

C.25. Alternate Monitoring Plan: The following alternate monitoring may be used to demonstrate compliance.

- (a) The NO_x CEM data may be used in lieu of the monitoring system for water-to-fuel ratio and the reporting of excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG. The calibration of the water-to-fuel ratio-monitoring device required in 40 CFR 60.335(c)(2) will be replaced by the 40 CFR 75 certification tests of the NO_x CEMS.
- (b) The NO_x CEM data shall be used in lieu of the requirement for reporting excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG.
- (c) When requested by the Department, the CEMS emission rates for NO_x on this unit shall be corrected to ISO conditions to demonstrate compliance with the NO_x standard established in 40 CFR 60.332.
- (d) A *custom fuel monitoring schedule* pursuant to 40 CFR 75 Appendix D for natural gas may be used in lieu of the daily sampling requirements of 40 CFR 60.334 (b)(2) provided the following conditions are met.
 - (1) The permittee shall apply for an Acid Rain permit within the deadlines specified in 40 CFR 72.30.
 - (2) The permittee shall submit a monitoring plan, certified by signature of the Authorized Representative, that commits to using a primary fuel of pipeline supplied natural gas containing no more than 1 grain of sulfur per 100 SCF of gas pursuant to 40 CFR 75.11(d)(2);
 - (3) Each unit shall be monitored for SO₂ emissions using methods consistent with the requirements of 40 CFR 75 and certified by the U.S. EPA.
This custom fuel-monitoring schedule will only be valid when pipeline natural gas is used as a primary fuel. If the primary fuel for these units is changed to a higher sulfur fuel, SO₂ emissions must be accounted for as required pursuant to 40 CFR 75.11(d).

[40 CFR 60, Subpart GG; and, 0970014-006-AC.]

C.26. 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.]

Continuous Monitoring Requirements

C.27. NO_x CEMS Requirements: For each gas turbine, the permittee shall install, calibrate, maintain, and operate continuous emissions monitors (CEMS) to measure and record emissions of nitrogen oxides (NO_x) and oxygen (O₂) in a manner sufficient to demonstrate compliance with the standards of this permit. A monitor for carbon dioxide (CO₂) may be used in place of the oxygen monitor, but the system shall be capable of correcting the emissions to 15% oxygen.

- (a) **Performance Specifications.** Each monitor shall be installed in a location that will provide emissions measurements representative of actual stack emissions. Each CEMS shall comply with the corresponding performance specifications that identify location, installation, design, performance, and reporting requirements.
- (3) Each NO_x monitor shall be certified pursuant to 40 CFR Part 75 and shall be operated and maintained in accordance with the applicable requirements of 40 CFR Part 75, Subparts B and C. Record keeping and reporting shall be conducted pursuant to 40 CFR Part 75, Subparts F and G. The RATA tests required for the NO_x monitor shall be performed using EPA Method 7E or 20 as defined in Appendix A of 40 CFR 60. The NO_x monitor shall have dual span capability with a low span (gas) no greater than 30 ppmvd corrected to 15% O₂ and a high span (oil) no greater than 200 ppmvd corrected to 15% O₂.
- (4) Each O₂ (or CO₂) CEMS shall comply with Performance Specification 3 in Appendix B of 40 CFR 60. The O₂ reference method for the annual RATA shall be EPA Method 3A Appendix A of 40 CFR 60.
- (b) **Data Collection.** Each CEMS shall be designed and operated to sample, analyze, and record emissions data evenly spaced over a 1-hour period during all periods of operation. Each 1-hour average shall be computed using at least one data point in each fifteen-minute quadrant of the 1-hour block during which the unit combusted fuel. Notwithstanding this requirement, each 1-hour average shall be computed from at least two data points separated by a minimum of 15 minutes. All valid measurements or data points collected during a 1-hour block shall be used to calculate the 1-hour emission averages. If the NO_x CEMS measures concentration on a wet basis, the permittee shall use approved methods for correction of measured emissions to a dry basis (0% moisture). The O₂ (or CO₂) CEMS shall express the 1-hour emission rate values in terms of "percent oxygen by volume". The NO_x CEMS shall express the 1-hour emission averages in terms of "ppmvd corrected to 15% oxygen".
- (c) **Compliance Averages.** Compliance with the 24-hour block NO_x emissions standards shall be based on data collected by each required CEMS. The 24-hour block shall start at midnight of each operating day and consist of 24 consecutive 1-hour blocks. For purposes of determining compliance with the emission standards of this permit, missing data shall not be substituted. Instead the 24-hour block average shall be determined using the remaining hourly data in the 24-hour block. If a unit operates continuously throughout the day, the 24-hour block average shall be the average of 24 consecutive 1-hour emission averages. If a unit operates less than 24 hours during the day, the 24-hour block average shall be the average of the available valid 1-hour emission averages collected during actual operation. If monitoring data is authorized for exclusion (due to startup, shutdown, malfunction, or tuning), the 24-hour block average shall be the average of the remaining valid 1-hour emission averages collected during actual operation. In cases of reduced operation or data exclusion, the compliance average will be based on less than 24, 1-hour emission averages. Upon completion of each 24-hour block, the permittee shall determine separate compliance averages for gas firing and oil firing. A 1-hour emissions average that includes any amount of oil firing shall only be included in the compliance average for oil

firing. Upon a request from the Department, the NO_x emission rate shall be corrected to ISO conditions to demonstrate compliance with the applicable standards of 40 CFR 60.332.

- (d) **Data Exclusion.** Except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, each CEMS shall record emissions data at all times including episodes of startup, shutdown, and malfunction. Emissions data recorded during periods of startup, shutdown, or malfunction may only be excluded from the compliance averages in accordance with the requirements previously specified in this permit. To the extent practicable, the permittee shall minimize the duration of data excluded for startup, shutdown and malfunctions. Data recorded during startup, shutdown or malfunction shall not be excluded if the episode was caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented. Best operational practices shall be used to minimize hourly emissions that occur during startup, shutdown and malfunction. Emissions of any quantity or duration that occur entirely or in part from poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented, shall be prohibited. Excluded emissions data shall be summarized in the required quarterly report.
- (e) **Reporting:** If a CEMS reports NO_x emissions in excess of a standard, the permittee shall notify the Compliance Authority within one working day with a preliminary report of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Compliance Authority may request a written summary report of the incident.
- (f) **Monitor Availability.** Monitor availability shall not be less than 95% in any calendar quarter. In the event 95% availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving 95% availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit.

[Rules 62-204.800, 62-210.700, 62-4.130, 62-4.160(8), F.A.C.; 40 CFR 60.7; and, 0970014-006-AC.]

C.28. For the purposes of 40 CFR 60.13, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of 40 CFR 60.13 upon promulgation of performance specifications for continuous monitoring systems under Appendix B of 40 CFR 60 and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, Appendix F of 40 CFR 60, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.

[40 CFR 60.13(a)]

{Permitting Note: The requirements for the NO_x CEMS which are installed and maintained in accordance with 40 CFR 75 are at least as stringent as the requirements of 40 CFR 60, and are an acceptable alternative to this condition.}

C.29. All continuous monitoring systems (CMS) or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of Appendix B of 40 CFR 60 shall be used.

[40 CFR 60.13(f)]

Required Tests, 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.30. Annual Tests Required. Annual emissions performance tests for CO, NO_x, and visible emissions from each combustion turbine shall be conducted when firing natural gas. If conducted at permitted capacity, the annual NO_x continuous monitor RATA required pursuant to 40 CFR 75 may be substituted for the annual compliance stack test. An annual performance test for VOC emissions is not required as long as the unit remains in compliance with the CO and visible emissions limits specified by this permit.

If a combustion turbine operates more than 200 hours of oil firing during any federal fiscal year, the permittee shall schedule and conduct annual emissions performance tests for CO, NO_x, and visible emissions when firing low sulfur distillate oil. For oil firing, compliance with the NO_x standards may be determined by the continuous monitor data collected during the required CO test. An annual performance test for VOC emissions is not required as long as the unit remains in compliance with the CO and visible emissions limits specified by this permit for oil firing.

Tests required on an annual basis shall be conducted at least once during each federal fiscal year (October 1st to September 30th).

[Rule 62-297.310(7)(a)4, F.A.C.; and, 0970014-006-AC.]

C.31. Compliance with the NSPS NO_x emission limit: If requested, the test method for emissions of nitrogen oxides shall be EPA Reference Method 20. During performance tests, to determine compliance with the NSPS NO_x standard, measured NO_x emissions at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor:

$$NO_x = (NO_{xO}) (P_r/P_o)^{0.5} e^{19(H_o-0.00633)} (288^\circ K/T_a)^{1.53}$$

where:

NO_x = emission rate of NO_x at 15 percent O₂ and ISO standard ambient conditions, volume percent.

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

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

P_o = observed combustor inlet absolute pressure at test, mm Hg.

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

E = transcendental constant, 2.718.

T_a = ambient temperature, °K.

[40 CFR 60.335(c)(1); Rule 62-297.401, F.A.C.]

C.32. Performance Test Methods: Compliance tests shall be performed in accordance with the following reference methods as described in 40 CFR 60, Appendix A, and adopted by reference in Chapter 62-204.800, F.A.C.

- (a) **EPA Method 7E**, "Determination of Nitrogen Oxide Emissions from Stationary Sources".
- (b) **EPA Method 9**, "Visual Determination of the Opacity of Emissions from Stationary Sources".
- (c) **EPA Method 10**, "Determination of Carbon Monoxide Emissions from Stationary Sources". All CO tests shall be conducted concurrently with NO_x emissions tests.
- (d) **EPA Method 20**, "Determination of Oxides of Nitrogen Oxide, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines."

(e) **EPA Methods 18, 25 and/or 25A**, “Determination of Volatile Organic Concentrations.” No other test methods may be used for compliance testing unless prior DEP approval is received, in writing, from the DEP Emissions Monitoring Section Administrator in accordance with an alternate sampling procedure pursuant to 62-297.620, F.A.C. [Rule 62-297.410, F.A.C.; and, 0970014-006-AC.]

C.33. Nitrogen Oxides. To compute the emissions of nitrogen oxides, the owner or operator shall use analytical methods and procedures that are accurate to within 5 percent and are approved by the Department to determine the nitrogen content of the fuel being fired. [40 CFR 60.335(a)]

C.34. Compliance with standards in 40 CFR 60, other than opacity standards, shall be determined only by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard. [40 CFR 60.11(a)]

C.35. Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c)]

C.36. The owner or operator shall provide, or cause to be provided, stack sampling and performance testing facilities as follows:

- (1) Sampling ports adequate for test methods applicable to such facilities.
- (2) Safe sampling platform(s).
- (3) Safe access to sampling platform(s).
- (4) Utilities for sampling and testing equipment.

[40 CFR 60.8(e)(1), (2), (3) & (4)]

C.37. 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**. Permanent stack sampling facilities shall have been installed and shall be maintained on the stacks for these units in accordance with Rule 62-297.310(6), F.A.C. [Rules 62-4.070, 62-204.800 & 62-297.310(6), F.A.C.; and, 0970014-006-AC.]

C.38. 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.]

C.39. Operating Rate During Testing/Testing procedures. Testing of emissions shall be conducted with the combustion turbine operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum heat input rate allowed by the permit, corrected for the average compressor inlet temperature during the test (with 100 percent represented by a curve depicting heat input vs. compressor inlet temperature). If it is impracticable to test at permitted capacity, the source may be tested at less than permitted capacity. In this case, subsequent operation is limited by adjusting the entire heat input vs. compressor inlet temperature curve downward by an increment equal to the difference between the maximum permitted heat input (corrected for compressor inlet temperature) and 110 percent of the value reached during the test until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity. The turbine manufacturer's capacity vs. temperature (ambient) curve shall be included with the compliance test results. Test procedures shall meet all applicable requirements (i.e., testing time frequency, minimum compliance duration, etc.) of Chapter 62-204 and 62-297 F.A.C.

[Rules 62-297.310(2) & (2)(a), F.A.C.; and, 0970014-006-AC]

C.40. 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.]

C.41. Applicable Test Procedures.

(a) Required Sampling Time.

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

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

Exceptions to these requirements are as follows:

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.

(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.

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

**TABLE 297.310-1
CALIBRATION SCHEDULE**

<u>ITEM</u>	<u>TOLERANCE</u>	<u>MINIMUM CALIBRATION FREQUENCY</u>	<u>REFERENCE INSTRUMENT</u>
Liquid in glass thermometer	Annually	ASTM Hg in glass	+/-2% ref. Thermometer or equivalent, or thermometric points
Bimetallic thermometer	Quarterly	Calib. Liq. In	5 degrees F glass thermometer
Thermocouple	Annually	ASTM Hg in glass	5 degrees F ref. Thermometer, NBS calibrated reference and potentiometer
Barometer	Monthly	Hg barometer or NOAA station	+/-1% scale
Pitot Tube	When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Fig. 2-2 & 2-3
Probe Nozzles	Before each test or when nicked, dented, or corroded	Micrometer	+/-0.001" mean of at least three readings Max. deviation between readings .004"
Dry Gas Meter and Orifice Meter	1. Full Scale: When 5% change observed, Annually 2. One Point: Semiannually 3. Check after each test series	Spirometer or When received, wet test or dry gas test meter Comparison check	2% calibrated 5%

C.42. 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.

8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.

9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

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

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

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

C.43. Tests Prior to Permit Renewal: Prior to renewing the air operation permit, the permittee shall also conduct emissions performance tests for CO, NO_x, VOC, and visible emissions when firing natural gas and when firing low sulfur distillate oil. These tests shall be conducted within the 12-month period prior to renewing the air operation permit. For pollutants required to be tested annually, the permittee may submit the most recent annual compliance test to satisfy the requirements of this provision.
[Rule 62-297.310(7)(a)3, F.A.C.; and, 0970014-006-AC.]

C.44. Tests After Substantial Modifications: All performance tests required for initial startup shall also be conducted after any substantial modification and appropriate shakedown period of air pollution control equipment including the replacement of dry low-NO_x combustors. Shakedown periods shall not exceed 100 days after re-starting the combustion turbine.
[Rule 62-297.310(7)(a)4, F.A.C.; and, 0970014-006-AC.]

C.45. VE Tests After Shutdown: Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions (VE) compliance test once per each five-year period, coinciding with the term of its air operation permit.
[Rule 62-297.310(7)(a)8, F.A.C.; and, 0970014-006-AC.]

Recordkeeping and Reporting Requirements

C.46. Fuel Records.

- (a) Natural Gas: The permittee shall demonstrate compliance with the SO₂ standards of this permit and in 40 CFR 60.333 by complying with the requirements in 40 CFR 75 Appendix D.
- (b) Low Sulfur Distillate Oil: For all bulk shipments of low sulfur distillate oil received at this facility, the permittee shall obtain an analysis identifying the sulfur content. An analysis provided by the fuel vendor is acceptable. Methods for determining the sulfur content of the distillate oil shall be ASTM D129-91, D2622-94, or D4294-90 or equivalent methods. Records shall specify the test method used and shall comply with the requirements of 40 CFR 60.335(d).
[Rules 62-4.070(3) & 62-4.160(15), F.A.C.; and, 0970014-006-AC.]

C.47. Monthly Operations Summary: By the fifth calendar day of each month, the owner or operator shall record the following information in a written or electronic log summarizing the previous month of operation and the previous 12 months of operation: hours of gas firing; million cubic feet of gas fired; hours of oil firing; and gallons of oil fired. The information shall be recorded for each gas turbine and for the group of three gas turbines. Information may be recorded and stored as an electronic file, but must be available for inspection and/or printing at the request of the Compliance Authority.
[Rule 62-4.160(15), F.A.C.; and, 0970014-006-AC.]

C.48. The owner or operator subject to the provisions of 40 CFR 60 shall furnish the Administrator written notification as follows:

- (4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.
[40 CFR 60.7(a)(4)]

C.49. The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or, any periods during which a continuous monitoring system or monitoring device is inoperative.
[40 CFR 60.7(b)]

C.50. Quarterly Excess Emissions Reports: If excess emissions occur due to malfunction, the owner or operator shall notify the Compliance Authority within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Following the NSPS format (40 CFR 60.7, Subpart A) periods of startup, shutdown, malfunction, shall be monitored, recorded, and reported as excess emissions when emission levels exceed the standards specified in this permit. Within thirty (30) days following each calendar quarter, the permittee shall submit a report on any periods of excess emissions that occurred during the previous calendar quarter to the Compliance Authority. This quarterly report shall follow the format provided in Figure 1 (attached) and summarize periods of excluded NO_x emissions data.
[Rules 62-4.130, 62-204.800 & 62-210.700(6), F.A.C.; 40 CFR 60.7; and, 0970014-006-AC.]

C.51. The owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report and/or a summary report form [see 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate). Written reports of excess emissions shall include the following information:

- (1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
- (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.
- (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
- (4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

[40 CFR 60.7(c)(1), (2), (3), and (4)]

C.52. The summary report form shall contain the information and be in the format shown in Figure 1 (attached) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

- (1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the

summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.

- (2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

[40 CFR 60.7(d)(1) and (2)]

{See attached Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance}

C.53. NSPS Excess Emissions Reporting.

(1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

- (i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;
- (ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in 40 CFR 60, Subpart A, and the applicable standard; and,
- (iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in 40 CFR 60.7(e)(2). The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in 40 CFR 60.7(e)(1) & (e)(2).

[40 CFR 60.7(e)(1)]

C.54. The owner or operator subject to the provisions of 40 CFR 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and, all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least **5 (five)** years following the date of such measurements, maintenance, reports, and records. These records shall be made available to DEP representatives upon request.

[40 CFR 60.7(f); Rules 62-4.160(14) & 62-213.440(1)(b)2.b., F.A.C.; and, 0970014-006-AC.]

C.55. Test Reports.

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
- (b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA 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 IV. This Section is the Acid Rain Part.

Operated by: Florida Power Corporation
ORIS code: 8049

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

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

E.U. ID No.	Description
-007	GE PG 7111EA Combustion Turbine – CT 7
-008	GE PG 7111EA Combustion Turbine – CT 8
-009	GE PG 7111EA Combustion Turbine – CT 9
-010	GE PG 7111EA Combustion Turbine – CT 10
-011	Siemens V84.3 Combustion Turbine – CT 11
-018	GE PG 7121 (7EA) Combustion Turbine – CT P12
-019	GE PG 7121 (7EA) Combustion Turbine – CT P13
-020	GE PG 7121 (7EA) Combustion Turbine – CT P14

1. The Acid Rain Part application submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these acid rain units must comply with the standard requirements and special provisions set forth in the application listed below:

- a. DEP Form No. 62-210.900(1)(a), dated 07/30/02.
 [Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

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

E.U. ID No.	EPA I.D.	Year	2003	2004	2005	2006	2007
-007	7	SO ₂ allowances, under Table 2 or 3 of 40 CFR 73	705*	705*	705*	705*	705*
-008	8	SO ₂ allowances, under Table 2 or 3 of 40 CFR 73	705*	705*	705*	705*	705*
-009	9	SO ₂ allowances, under Table 2 or 3 of 40 CFR 73	705*	705*	705*	705*	705*
-010	10	SO ₂ allowances, under Table 2 or 3 of 40 CFR 73	705*	705*	705*	705*	705*
-011	11	SO ₂ allowances, under Table 2 or 3 of 40 CFR 73	0*	0*	0*	0*	0*
-018	12	SO ₂ allowances, under Table 2 or 3 of 40 CFR 73	0*	0*	0*	0*	0*
-019	13	SO ₂ allowances, under Table 2 or 3 of 40 CFR 73	0*	0*	0*	0*	0*
-020	14	SO ₂ allowances, under Table 2 or 3 of 40 CFR 73	0*	0*	0*	0*	0*

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

3. Emission Allowances. Emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.

a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.440(3), F.A.C.

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

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

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

4. Comments, notes, and justifications: None.

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

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, are exempt from the permitting requirements of Chapters 62-210 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rule 62-210.300(3)(a), F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rule 62.210.300(3)(a), F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

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

1	Lube Oil System Vents
2	Lube Oil Reservoir Tank
3	Oil Water Separators (2)
4	Hazardous Waste Building
5	Parts Washers/Degreasers
6	Waste Oil Storage Tanks
7	Lube Oil Storage Building
8	Portable Unleaded Gasoline Tank
9	No. 2 Diesel Fuel Tank
10	Sandblaster
11	Brazing, Soldering, Welding
12	Maintenance Shop Lathes
13	Maintenance Shop Hand-held Tools
14	Fire Water Tanks
15	Water Treatment Building Welding Equipment
16	Water Treatment Building Fire Equipment
17	Non-halogenated Solvents
18	55 Gallon Drums – Oily Rags/Water/Dirt
19	Surface Coating and Solvent Cleaning
20	General Purpose Engines

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

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

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

Emissions Unit	Description
-015	Fuel Storage Tanks

Appendix H-1, Permit History/ID Number Changes

Permit History (for tracking purposes):

<u>E.U.</u> <u>ID No.</u>	<u>Description</u>	<u>Permit No.</u>	<u>Issue</u> <u>Date</u>	<u>Expiration</u> <u>Date</u>	<u>Extended</u> <u>Date</u>	<u>Revised</u> <u>Date(s)</u>
-001 to -017	Initial Title V Permit	0970014-001-AV	12/31/97	12/31/02		
-007 to -010	Addition of Inlet Foggers	0970014-002-AC	5/17/99	12/31/99		
-018 to -020	Construction permit to install 3 new simple cycle CTs	0970014-003-AC	12/09/99	7/01/01		
-001 to -017	Title V Permit Revision to Include Inlet Foggers, NO _x CEMs for Monitoring, and Minor Administrative Corrections.	0970014-004-AV	6/13/00	12/31/02		
-018 to -020	Modification	0970014-006-AC	1/30/02	12/31/02		
All	Title V Renewal	0970014-007-AV	1/1/03	12/31/07		

REFERENCED ATTACHMENTS

Phase II Acid Rain Application/Compliance Plan

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

Appendix SS-1, Stack Sampling Facilities (version dated 10/07/96)

Appendix TV-4, Title V Conditions (version dated 2/12/02)

Figure 1: Summary Report- Gaseous and Opacity Excess Emission and Monitoring System Performance

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

Table 2-1, Summary of Compliance Requirements

Table 1-1, Air Pollutant Emission Allowables and Terms

Florida Power Corporation
Intercession City Facility

PROPOSED Title V Permit No.: 0970014-007-AV
Facility ID No.: 0970014

Emissions Unit & No.			Allowables per each Combustion Turbine			Equivalent Emissions	
Pollutant	Fuel(s)	Hrs/Yr /CT	Standards(s)	lbs/hr /CT ¹	TPY	lbs/hr /CT ²	TPY ²

Regulation(s)	Permit Specific Condition(s)
---------------	------------------------------

E.U.-001 to -006 (CTP 1, CTP 2, CTP 3, CTP 4, CTP 5, & CTP 6)							
SO ₂	Oil	8760	New No. 2 F.O.- max. 0.5% S by wt.			364.23	9,571.96
VE	Oil	8760	20% opacity				

Rule 62-4.070, F.A.C.	A.6
Rule 62-296.320(4)(b)1., F.A.C.	A.5

1 - Emissions rates based on 59° F and 15% O₂ at peak load.
2 - Equivalent to 8760 hours per year at peak load.

Table 1-1, Air Pollutant Emission Allowables and Terms

Florida Power Corporation
Intercession City Facility

PROPOSED Title V Permit No.: 0970014-007-AV
Facility ID No.: 0970014

Emissions Unit & No.			Allowables per each Combustion Turbine			Regulation(s)	Permit Specific Condition(s)
Pollutant	Fuel(s)	Hrs/Yr /CT	Standards(s)	lbs/hr /CT	TPY		
E.U.-007 to -010 (CT 7, CT 8, CT 9, & CT 10)							
NO _x	Gas	3390	25 ppmvd @ 15% O ₂ - dry basis	107.00	725.46 ^a	Rule 62-212.400(6), F.A.C.	B.6
	Oil	3390	42 ppmvd @ 15% O ₂ - dry basis	182.00	1233.96 ^a	Rule 62-212.400(6), F.A.C.	B.6
SO ₂	Gas	3390	1 grain of S per 100 dscf	2.99	20.27 ^c	BACT	B.6
	Oil	2891	New No. 2 F.O.- max. 0.2% S by wt.	222.00	1283.60 ^b	Rule 62-212.400(6), F.A.C.	B.6
PM/PM ₁₀	Gas	3390		7.50	50.85 ^c	BACT	B.6
	Oil	3390	0.01 lb/MMBtu	15.00	101.70 ^c	BACT	B.6
VOC	Gas	3390		3.00	20.34 ^c	BACT	B.6
	Oil	3390		5.00	33.90 ^c	BACT	B.6
CO	Gas	3390		21.30	144.41 ^c	Rule 62-212.400(6), F.A.C.	B.6
	Oil	3390	25 ppmvd	54.00	366.12 ^c	Rule 62-212.400(6), F.A.C.	B.6
H ₂ SO ₄	Gas	3390	New No. 2 F.O.- max. 0.2% S by wt.	0.44	2.98 ^c	BACT	B.6
	Oil	2891		18.00	104.08 ^b	BACT	B.6
Fluorines (Fl)	Oil	3390	New No. 2 F.O.- max. 0.2% S by wt.		^d	BACT	B.6
Mercury (Hg)	Oil	3390	New No. 2 F.O.- max. 0.2% S by wt.		^d	BACT	B.6
Lead (Pb)	Oil	3390	New No. 2 F.O.- max. 0.2% S by wt.		^d	BACT	B.6
Inorganic Arsenic (As)	Oil	3390	New No. 2 F.O.- max. 0.2% S by wt.		^d	BACT	B.6
Beryllium (Be)	Oil	3390	New No. 2 F.O.- max. 0.2% S by wt.		^d	BACT	B.6
VE	Gas or Oil	3390	10% - Normal conditions at full load			Rule 62-212.400(6), F.A.C.	B.6
			20% - Exceptional conditions				

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

b - Total TPY for SO₂ assumes 33% capacity factor, 2891 hours/CT/yr at peak load, and fuel with a maximum sulfur content of 0.2%, by weight. Refer to Specific Condition No. B.5 for listed capacity factors vs. sulfur content in fuel oil and specific condition No. B.3 for the fuel consumption based on the permitted TPY of SO₂ emissions.

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

d - Emissions controlled by standards.

Table 1-1, Air Pollutant Emission Allowables and Terms

Florida Power Corporation
Intercession City Facility

PROPOSED Title V Permit No.: 0970014-007-AV
Facility ID No.: 0970014

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

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

Regulation(s)	Permit Specific Condition(s)
---------------	------------------------------

E.U.-011 (CT 11)		
NO _x	Gas	3390
	Oil	3390
SO ₂	Gas	3390
	Oil	2891
PM/PM ₁₀	Gas	3390
	Oil	3390
VOC	Gas	3390
	Oil	3390
CO	Gas	3390
	Oil	3390
H ₂ SO ₄	Gas	3390
	Oil	2891
Florins (Fl)	Oil	3390
Mercury (Hg)	Oil	3390
Lead (Pb)	Oil	3390
Inorganic Arsenic	Oil	3390
Beryllium (Be)	Oil	3390
VE	Gas or	3390
	Oil	

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

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

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

b - Total TPY for SO₂ assumes 33% capacity factor, 2891 hours/CT/yr at peak load, and fuel with a maximum sulfur content of 0.2%, by weight. Refer to Specific Condition No. B.5 for listed capacity factors vs. sulfur content in fuel oil and specific condition No. B.3 for the fuel consumption based on the permitted TPY of SO₂ emissions.

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

d - Emissions controlled by standards.

Table 1-1, Air Pollutant Emission Allowables and Terms

Florida Power Corporation
Intercession City Facility

PROPOSED Title V Permit No.: 0970014-007-AV
Facility ID No.: 0970014

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

Allowables per each Combustion Turbine		
Standards(s)	lbs/hr /CT	TPY (all 3)

Regulation(s)	Permit Specific Condition(s)
---------------	------------------------------

E.U.-018 to -020 (CT 12, CT 13, & CT 14)					
NO _x	Gas	3390	9 ppmvd @ 15% O ₂ - dry basis	33.00	167.81
	Oil	1000	42 ppmvd @ 15% O ₂ - dry basis	168.00	252.00
SAM/SO ₂	Gas	3390	1 grain of S per 100 dscf	2.35	11.95
	Oil	1000	New No. 2 F.O.- max. 0.05% S by wt.	49.12	73.68
PM/PM ₁₀	Gas	3390	Good Combustion	N/A	N/A
	Oil	1000	Good Combustion	N/A	N/A
VOC	Gas	3390	2 ppmvw as methane	2.00	10.17
	Oil	1000	4 ppmvw as methane	5.00	7.5
CO	Gas	3390	20 ppmvd @ 15% O ₂ - dry basis	43.00	218.66
	Oil	1000	20 ppmvd @ 15% O ₂ - dry basis	44.00	66.00
VE	Gas	3390	10% - Normal conditions at full load		
	Oil	1000	10% - Normal conditions at full load		

Rule 62-212.400(BACT), F.A.C.	C.10., C.12.
Rule 62-212.400(BACT), F.A.C.	C.10., C.12.
Rule 62-212.400(BACT), F.A.C.	C.10., C.13.
Rule 62-212.400(BACT), F.A.C.	C.10., C.13.
Rule 62-212.400(BACT), F.A.C.	C.10., C.14.
Rule 62-212.400(BACT), F.A.C.	C.10., C.14.
Rule 62-212.400(BACT), F.A.C.	C.10., C.15.
Rule 62-212.400(BACT), F.A.C.	C.10., C.15.
Rule 62-212.400(BACT), F.A.C.	C.10., C.11.
Rule 62-212.400(BACT), F.A.C.	C.10., C.11.
Rule 62-212.400(BACT), F.A.C.	C.10., C.16.
Rule 62-212.400(BACT), F.A.C.	C.10., C.16.

Table 2-1, Summary of Compliance Requirements

Florida Power Corporation
Intercession City Facility

PROPOSED Title V Permit No.: 0970014-007-AV
Facility ID No.: 0970014

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

Table 2-1, Summary of Compliance Requirements

Florida Power Corporation
Intercession City Facility

PROPOSED Title V Permit No.: 0970014-007-AV
Facility ID No.: 0970014

E.U. ID							
Pollutant Name or parameter	Fuel(s)	EPA/Reference Method	Testing Time or Frequency	Frequency Base Date	Min. Compliance Test Time	CMS	Permit Condition(s)
E.U.-018 to -020 (CT 12, CT 13, & CT 14)							
NO _x	Gas	EPA Method 7E	Annual		1 Hour	Yes	C.30., C.32.
	Oil	EPA Method 20	Annual		1 Hour	Yes	C.30., C.32.
VOC ³	Gas	EPA Method 18, 25 and/or 25A	Annual		1 Hour		C.30., C.32.
	Oil		Annual		1 Hour		C.30., C.32.
CO	Gas	EPA Method 10	Annual		1 Hour		C.30., C.32.
	Oil	EPA Method 10	Annual		1 Hour		C.30., C.32.
VE	Gas	EPA Method 9	Annual		30 minutes	Yes	C.30., C.32.
	Oil	EPA Method 9	Annual		30 minutes	Yes	C.30., C.32.

1- Sulfur content of the fuel oil shall be provided by the supplier, or by the permittee, for every delivery.

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

3- Annual testing is not necessary if compliance with CO allowable is demonstrated annually.

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