File

Florida Power
A Progress Energy Company

November 1, 2002

RECEIVED
NOV 05 2002
BUREAU OF AIR REGULATION

Mr. Scott Sheplak, P.E.
Florida Department of Environmental Protection
Bureau of Air Regulation, Title V Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Intercession City Facility
Title V Permit – Draft Renewal Permit
File No.: 0970014-007-AV
Comments on Draft Permit

Dear Mr. Sheplak:

Please find below Florida Power's comments on the above referenced draft permit.

Section I Comments:

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

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.

Please remove Subsection D. in its entirety.

Section III Comments:

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.}*

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.}*

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.}*

Please add the words *"or pemittee"*, 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.*

Please add the words *"or pemittee"*, 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).*

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.

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.*

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.

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.

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.}

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

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.}

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

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

Please remove the last sentence of condition B.28., as it should not be necessary to cap the rate at which compliance testing is conducted.

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

<u>Visible Emissions Testing – Annual.</u> 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.

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.

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.

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."*.

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

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.*

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.*

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. Documentation from the most recent stack test report for Unit 12 (included in the application) shows that the unit was test at 94.9 percent of capacity on natural gas and 98.8 percent of capacity on oil. Documentation from the most recent stack test report for Units 13 and 14 (enclosed with this letter and intended to supplement the application) shows that Unit 13 was tested at 93.7 percent of capacity on gas and 97.1 percent on oil and that Unit 14 was tested at 93.9 percent on gas and 98.6 percent on oil. A copy of the temperature vs. heat input curve, based on manufacture's data, is also enclosed.

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.]*

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

> *Water Injection: To control NOx 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 NOx emissions.*

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

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

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.

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

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.

General Section III Comments:

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 NOx burners for NOx control.

Comments on Appendices:

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).

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.

Comments on Attachments:

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

Please contact Jamie Hunter at (727) 826-4363, if you have any questions or need additional information.

I, the undersigned, am the responsible official as defined in Chapter 62-210.200, F.A.C., of the Title V source for which this document is being submitted. I hereby certify, based on the information and

belief formed after reasonable inquiry, that the statements made and data contained in this document are true, accurate, and complete.

Sincerely,

Kris A. Edmondson

Kris Edmondson
Plant Manager/ Responsible Official
Central Florida CT Sites

enclosure

jjh/JJH047

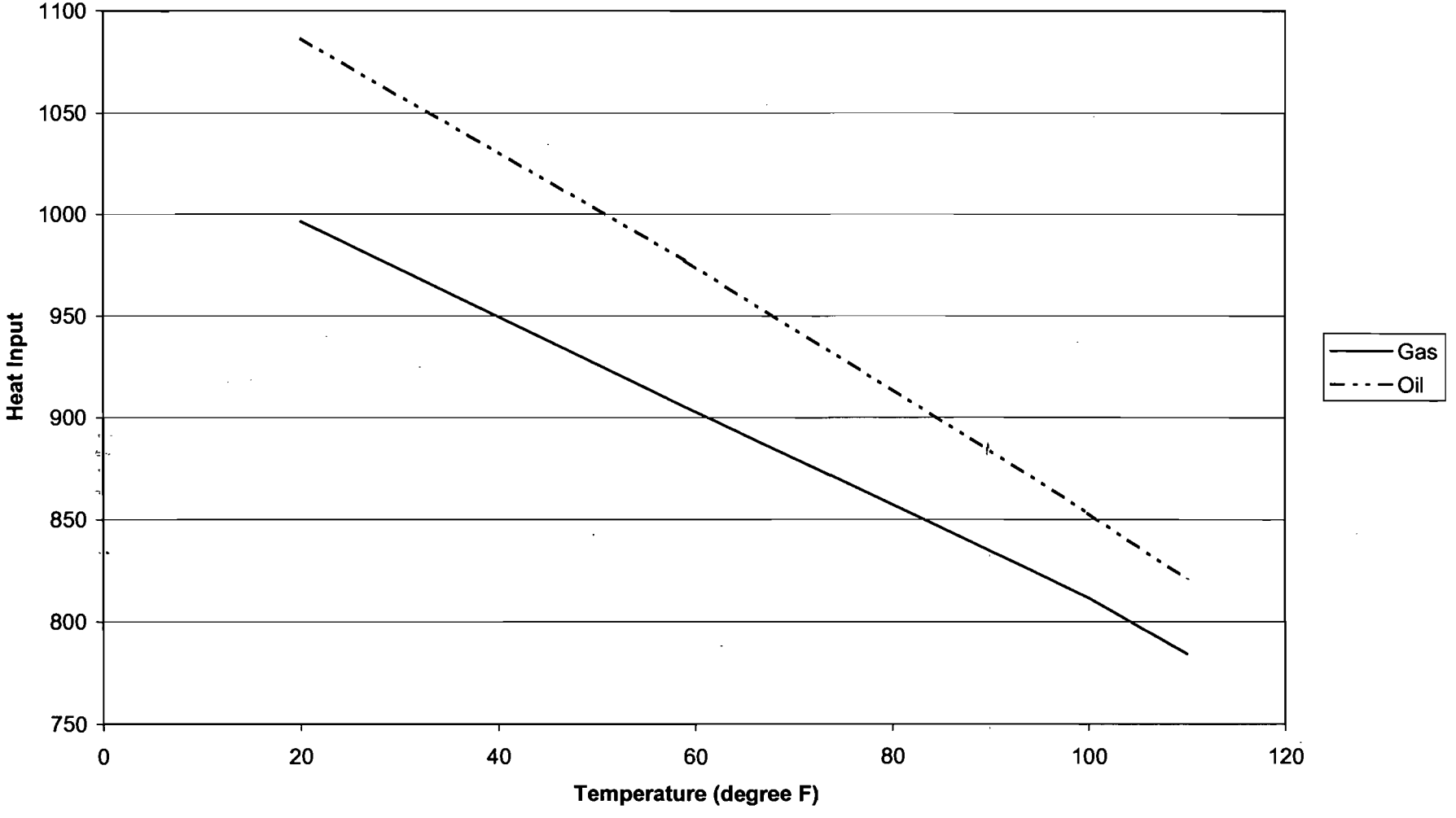
c: Jonathan Holtom, FDEP- Tallahassee

bc: Jamie Hunter, BB1A

Address for FDEP - Tallahassee Office:

Mr. Jonathan Holtom, P.E.
Florida Department of Environmental Protection
Bureau of Air Regulation, Title V Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Intercession City Units P12-P14
Temperature vs. Heat Input
(2002)



Florida Power
A Progress Energy Company

October 9, 2002

RECEIVED
OCT 10 2002
BUREAU OF AIR REGULATION

Mr. Jonathan Holtom, P.E.
Florida Department of Environmental Protection
Bureau of Air Regulation, Title V Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Intercession City Facility
Title V Permit – Draft Renewal Permit
File No.: 0970014-007-AV
Public Notice – Proof of Publication

Dear Mr. Holtom:

Please find enclosed the "proof of publication" for the public notice of the above referenced draft permit. The notice was published on October 5, 2002.

Please contact me at (727) 826-4363 if you have any questions or need additional information.

Sincerely,

Jamie Hunter
Lead Environmental Specialist

enclosure

jjh/JJH045

P.O. Box 14042
St. Petersburg, FL 33733

PROOF OF PUBLICATION

FROM

Osceola News-Gazette

Kissimmee, Florida
OSCEOLA COUNTY

In the Matter of

....Public...Notice..

..Of..Intent..To..Issue..

.Title..V.Air..Operation..

...Permit..Renewal....

Filed ..... day of ....., 20 .....

First Publication ...October 5....., 20 02

Last Publication ...October 5....., 20 02

Make Remittance to Osceola News-Gazette
Kissimmee, Florida

PROOF OF PUBLICATION

STATE OF FLORIDA,
COUNTY OF OSCEOLA

Before me, the undersigned authority, personally appeared Paula A. Stark, who on oath says that she is General Manager of the Osceola News-Gazette, a twice weekly newspaper published at Kissimmee, in Osceola County, Florida; that the attached copy of the advertisement was published weekly in the regular and entire edition of said newspaper in the issues of:

October 5, 2002

Affiant further says that the Osceola News-Gazette is a newspaper published in Kissimmee, in said Osceola County, Florida, and that the said newspaper has heretofore been continuously published in said Osceola County, Florida, each week and has been entered as periodicals postage matter at the post office in Kissimmee, in said Osceola County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Paula A. Stark

Sworn to and subscribed before me by Paula A. Stark, who is personally known to me, this 5 day of October 2002

Carol L. Gorrell

Carol L. Gorrell
(N.P. Seal)

Official Seal
CAROL L. GORRELL
Notary Public, State of Florida
My comm expires Oct. 24, 2004
Comm No. CC 970428

PUBLIC NOTICE OF INTENT
TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DRAFT Permit No.: 0970014-007-AV
Renewal of Title V Air Operation
Permit No.: 0970014-001-AV
Florida Power/Progress Energy - Intercession City Facility
Osceola County

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue a Title V Air Operation Permit Renewal to Florida Power/ Progress Energy for the Intercession City Facility located at 6525 Osceola Polk County Line Road, Intercession City, Osceola County. The applicant's name and address are: Kris Edmondson - Plant Manager Central CT Sites, Florida Power/ Progress Energy, 100 Central Avenue, Mail Code IC44, St. Petersburg, Florida 33701.

The permitting authority will issue the PROPOSED Permit, and subsequent FINAL Permit, in accordance with the conditions of the DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed DRAFT Permit issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station # 5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-1344; Fax #: 850/922-6979). Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the permitting authority shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station # 35, Tallahassee, Florida 32399-3000 (Telephone: 850/ 245-2242; Fax #: 850/ 245-2303). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of the notice of intent, whichever occurs first. Under Section 120.60 (3), F.S., however, any person who asked the permitting authority for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the applicable time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, Florida Administrative Code (F.A.C.).

A petition that disputes the material facts on which the permitting authority's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name, address and telephone number of the petitioner; name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how petitioner's substantial rights will be affected by the agency determination.

(c) A statement of how and when the petitioner received notice of the agency action or proposed action;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so state;

(e) A concise statement of the ultimate facts alleged as well as the rules and statutes, which entitle petitioner to relief;

(f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and,

(g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available for this proceeding.

In addition to the above, pursuant to 42 United States Code (U.S.C.), Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established a 42 U.S.C. Section 7661d(b)(1), to object to issuance of any permit. Any petition shall be based only on objections to the permit tha were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitione demonstrates to the Administrator of the EPA that it was impract cable to raise such objections within the comment period or unles the grounds for such objections arose after the comment period. F ing of a petition with the Administrator of the EPA does not stay th effective date of any permit property issues pursuant to the prov sions of Chapter 62-213, F.A.C. Petitions filed with the Administra tor of EPA must meet the requirements of 42 U.S.C. Section 766 (b)(2). and must be filed with the Administrator of the EPA at: U.S EPA, 401 M Street, S.W., Washington, D.C. 20460.

A complete project file is available for public inspection durir normal business hours, 8:00 A.M. to 5:00 P.M., Monday throu Friday, except legal holidays, at:

Permitting Authority:	Affected District/Local Progra
Department of	Department of
Environmental Protection	Environmental Protection
Bureau of Air Regulation	Central District Office
111 South Magnolia Drive,	3319 Maguire Boulevard
Suite 4	Suite 232
Tallahassee, Florida 32301	Orlando, Florida 32803-3
Telephone: 850/488-0114	Telephone: 407/894-7555
Fax #: 850/922-6979	Fax #: 407/897-2966

The complete project file includes the DRAFT Permit, the ap cation, and the information submitted by the responsible offi exclusive of confidential records under Section 403.111, F.S. Ir ested persons may contact Mr. SCOTT M. SHEPLAK, P.E., additional information.

THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the Matter of an
Application for Permit by:

OGC CASE NO.: _____

FDEP Draft Permit No.: 0970014-007-AV

Florida Power Corporation
Intercession City Facility
Osceola County, Florida
_____/

REQUEST FOR ENLARGEMENT OF TIME

By and through undersigned counsel, Florida Power Corporation ("FPC") hereby requests, pursuant to Florida Administrative Code Rule 62-110.106(4), an enlargement of time, to and including November 8, 2002, in which to file a Petition for Administrative Proceedings in the above-styled matter. As good cause for granting this request, FPC states the following:

1. On October 2, 2002, FPC received from the Department of Environmental Protection ("Department") by Certified Mail an "Intent to Issue Title V Air Operation Permit Renewal" (Draft Permit No. 0970014-007-AV) for the Intercession City Facility, located in Osceola County, Florida. Along with the Intent to Issue, FPC received a Draft Title V Permit and "Public Notice of Intent to Issue Title V Air Operation Permit Renewal."

2. Based on FPC's review, the Draft Permit and associated documents contain several provisions that warrant clarification or corrections.

3. This request is filed simply as a protective measure to avoid waiver of FPC's right to challenge certain conditions contained in the Draft Title V Permit. Grant of this request will

not prejudice either party, but will further their mutual interest and hopefully avoid the need to file a Petition and proceed to a formal administrative hearing. In the event all issues are resolved prior to November 8, 2002, FPC will withdraw this Request.

WHEREFORE, FPC respectfully requests that the time for filing of a Petition for Administrative Proceedings in regard to the Department's Intent to Issue Title V Air Operation Permit for Permit No. 0970014-007-AV be formally extended to and including November 8, 2002.

RESPECTFULLY SUBMITTED this 8th day of October, 2002.

By: _____

Robert A. Manning
Florida Bar ID No. 0035173
Hopping Green & Sams, P.A.
123 South Calhoun Street
Post Office Box 6526
Tallahassee, Florida 32314
(850) 222-7500
(850) 224-8551 Facsimile

Attorneys for FLORIDA POWER CORPORATION

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished to the following by U.S. Mail this 8th day of October, 2002:

Scott Sheplak, P.E. Administrator
Bureau of Air Regulation
Department of Environmental Protection
2600 Blair Stone Road, MS 5505
Tallahassee, FL 32399-2400

W. Douglas Beason
Office of the General Counsel
Department of Environmental Protection
3900 Commonwealth Blvd., Room 353-A
Tallahassee, FL 32399-2600

Robert A. Manning

10/10/02 cc: Jonathan Holtom
Scott Sheplak

FILE

Florida Power
A Progress Energy Company

July 18, 2002

Mr. Garry Kuberski
Florida Department of Environmental Protection
Central District
3319 Maguire Boulevard, Suite 232
Orlando, FL 32803-3767

Dear Mr. Kuberski:

Re: Intercession City Plant – Units P13 and P14
Initial Compliance Testing after Modification for Units P12 – P14
Permit: 0970014-006-AC / PSD-FL-268A

Please find enclosed the initial post-modification air emissions compliance testing for Units P13 and P14 at the Intercession City Plant. This testing will also serve as the annual compliance test for Units P13 and P14. The test report for Units P12 was previously submitted under separate cover.

The testing, which occurred on May 29th and May 30th, demonstrates compliance for NOx, VOC, CO and visual emissions on each fuel (natural gas and oil). Please contact Jamie Hunter at (727) 826-4363 if you have any questions or need additional information.

I hearby certify that based on the information and belief formed after reasonable inquiry, the statements and information in the attached document are true, accurate and complete.

Sincerely,

Kris Edmondson
Plant Manager Central CT Sites/Responsible Official

jjh/JJH040

enclosure

EMISSION TEST REPORT

for
EMISSIONS COMPLIANCE
of
TWO GENERAL ELECTRIC FRAME 7EA TURBINES
P-13 & P-14
at the
INTERCESSION CITY POWER PLANT
near
INTERCESSION CITY, OSCEOLA COUNTY, FLORIDA

Prepared for
Florida Power Corporation

Test Dates: May 29-30, 2002

Cubix Job No. 7009

Prepared by

Cubix Corporation
http://www.cubixcorp.com

CORPORATE HEADQUARTERS
9225 US Hwy. 183 South, Austin, TX 78747
(512) 243-0202 TEL (512) 243-0222 FAX

EMISSION TEST REPORT

for
EMISSIONS COMPLIANCE
of
TWO GENERAL ELECTRIC FRAME 7EA TURBINES
P-13 & P-14
at the
INTERCESSION CITY POWER PLANT
near
INTERCESSION CITY, OSCEOLA COUNTY, FLORIDA

Prepared for
Florida Power Corporation

Test Dates: May 29-30, 2002

Cubix Job No. 7009

TABLE OF CONTENTS

INTRODUCTION

Emission tests were conducted on two stationary gas turbines (P-13 and P-14) located at the Intercession City Power Plant near Intercession City, Florida. The purpose of these tests was to determine the compliance status of these units with regard to the Florida Department of Environmental Protection (FDEP) PSD Permit No. PSD-FL-268A, Project No. 0970014-006-AC, and 40 CFR 60 Subpart GG. The testing was conducted by Cubix Corporation of Austin, Texas on May 29 and 30, 2002.

Quantities of nitrogen oxides (NOx), carbon monoxide (CO) and volatile organic compounds (VOC) were measured in the exhaust of the turbine.

The emission tests followed the procedures set forth in the Code of Federal Regulations, Title 40, Part 60, Appendix A, Methods 1, 3a, 9, 10, 19, 20 and 25a. Table 1 summarizes the background information pertinent to these tests.

This report has been reviewed and approved for submittal by the following representatives:

Cubix Corporation

Florida Power Corporation

TABLE 1
BACKGROUND DATA

Owner/Operator:	Florida Power Corporation
Test Coordinator:	Florida Power Corporation One Power Plaza, 263 13th Avenue South, BB1A St. Petersburg, FL 33701-5511 Attn: Jamie Hunter, Environmental Engineer (727) 826-4363 TEL (727) 826-4216 FAX
Test Contractor:	Cubix Corporation 9225 US Highway 183 S. Austin, Texas 78747 Attn.: Tony Ruiz, Project Manager (512) 243-0202 TEL (512) 243-0222 FAX
Test Dates:	May 29-30, 2002
Location:	Intercession City, Florida.
Process Description:	The turbines are utilized for generation of electricity. Dry-low NOx burners are utilized for NOx control when fueled by natural gas. Water injection is utilized for NOx control when fueled by No. 2 fuel oil.
Emission Point:	Emissions were measured in the 7 ports located on the rectangular exhaust stack of each unit.
Test Methods:	Traverse point layout by EPA Method 1 O_2 and CO_2 concentrations and molecular weight by EPA Method 3a Stack moisture also by stoichiometry Opacity by EPA Method 9 CO concentration by EPA Method 10 Stack flow rates by EPA Method 19 NOx and O2 by EPA Method 20 THC concentration by EPA Method 25a
Regulatory Applications:	40 CFR 60 Subpart GG

SUMMARY OF RESULTS

Exhaust gases from the gas turbine generation units were tested to satisfy FDEP permit requirements. Cubix Corporation of Austin, Texas conducted this testing on May 29-30, 2002. The results of those tests are summarized in this section of the report.

Test Matrix

The test matrix consisted of three test runs at base load conditions while the unit was fueled with natural gas and also three runs at base load conditions while the unit was fueled with distillate fuel oil. This test procedure was performed for both Units P-13 and P-14.

During the 1-hour test runs conducted at base load, NOx, CO, THC, CO2 and O2 concentrations were continuously monitored via instrumental analysis. In addition, opacity was measured. Fuel samples of natural gas and distillate fuel oil were collected and subsequently analyzed for total sulfur content as an indirect measurement of SO2 emissions.

Tables 2 and 3 provide the summaries while Unit P-13 was fueled with natural gas and distillate fuel respectively. Tables 4 and 5 provide the summaries while Unit P-14 was fueled with natural gas and distillate fuel respectively. These tables provide the pertinent unit operational data, ambient conditions, Cubix measurements, and calculated emissions during each test run.

The data used to generate these tables are supported by the documents presented in the appendices of this report. Appendix A contains a sketch of the stack and the traverse point layout. Examples of calculations used for the presentation of the data are contained in Appendix B. Turbine operational data provided by FPC is located in Appendix C. Summaries of the QA/QC activities are presented in Appendix D. Certifications of the calibration gases are included in Appendix E. Copies of the strip chart records from these tests are located in Appendix F. Fuel analyses and F-factor worksheets required for calculation of stack volumetric flow rates can be found in Appendix G. Opacity worksheets and observer certifications are presented in Appendix H.

Table 2: Summary of Results
Unit P-13 Full Load Testing
Natural Gas Fuel

Company: Florida Power Corporation
Plant: Intercession City Plant
Location: Intercession City, Osceola County, Florida
Technicians: TR, SO
Source: Unit P-13, a GE Frame 7EA Combustion Turbine

Test Number	P13-NG-1	P13-NG-2	P13-NG-3		
Date	5/30/02	5/30/02	5/30/02		
Start Time	11:26	12:37	13:50		FDEP Permit Limits
Stop Time	12:26	13:37	14:50		
Power Turbine Operation				*Averages*	
Generator Output (MW, DWATT)	77.4	76.6	76.3	***76.8***	
Heat Input (MMBtu/hr, LHV) (fuel meter run)	840.8	836.3	831.1	***836.1***	**905†**
Turbine Capacity (Mfg.'s Curve, Generator Output vs. T-1)	82.6	81.9	81.3	***81.9***	
Percent Load (% of maximum heat input at inlet temp)	93.8%	93.5%	93.8%	***93.7%***	
Barometric Pressure ("Hg, AFPAP)	29.7	29.6	29.6	***29.6***	
Air Inlet Duct Losses ("H_2O, AFPCS)	2.90	2.90	2.90	***2.90***	
Specific Humidity (CMHUM)	0.0265	0.0236	0.0215	***0.0239***	
Compressor Inlet Temperature (°F, CTIM)	86	88	90	***88***	
Engine Compressor Discharge Pressure (psia, CPD)	161.0	160.1	159.6	***160.2***	
Compressor Discharge Temperature (°F, CTD)	700	703	705	***703***	
Mean Turbine Exhaust Temperature (°F, TTXM)	1043	1044	1045	***1044***	
Inlet Guide Vane Angle (degrees, CSGV)	84.0	84.0	84.0	***84.0***	
Turbine Fuel Data (Natural Gas, FGT)					
Fuel Heating Value (Btu/lb, HHV)	23043	23043	23043	***23043***	
Fuel Heating Value (Btu/lb, LHV)	20761	20761	20761	***20760.8***	
Fuel Specific Gravity	0.5840	0.5840	0.5840	***0.5840***	
Sulfur in Fuel (grains/100 SCF of fuel gas)	0.003	0.003	0.003	***0.003***	**1.0**
O_2 "F_d Factor" (DSCFex/MMBtu @ 0% excess air)	8645	8645	8645	***8645***	
CO_2 "F_c Factor" (DSCFex/MMBtu @ 0% excess air)	1032	1032	1032	***1032***	
Gas Fuel Flow (FQG, lbs/sec from Mark V)	11.25	11.19	11.12	***11.19***	
Heat Input (MMBtu/hr, HHV, from Mark V)	933.2	928.3	922.5	***928.0***	
Ambient Conditions					
Atmospheric Pressure ("Hg)	29.83	29.83	29.77	***29.81***	
Temperature (°F): Dry bulb	89.0	92.0	92.0	***91.0***	
(°F): Wet bulb	78.0	78.0	77.0	***77.7***	
Humidity (lbs moisture/lb of air)	0.0177	0.0170	0.0161	***0.0169***	
Measured Emissions					
NO_X (ppmv, dry basis)	5.50	5.66	5.72	***5.62***	
NO_X (ppmv, dry @ 15% excess O_2)	**5.30**	**5.69**	**5.62**	***5.54***	**9.0**
NO_X (ppmv @ 15% O_2, ISO Day)	6.13	6.46	6.24	***6.28***	
CO (ppmv, dry basis)	5.33	4.30	4.16	***4.60***	
CO (ppmv, dry @15% excess O_2)	5.14	4.33	4.09	***4.52***	**20.0**
UHC (ppmv, wet basis)	0.18	0.01	0.28	***0.16***	**2.0**
Visible Emissions (% opacity)	N/A	N/A	0	***0***	**10**
O_2 (% volume, dry basis)	14.78	15.04	14.90	***14.91***	
CO_2 (% volume, dry basis)	3.50	3.46	3.50	***3.49***	
F_o (fuel factor, range = 1.600-1.836 for NG)	1.75	1.69	1.72	***1.72***	
Stack Volumetric Flow Rates (via EPA Method 19)					
via O_2 "F_d Factor" (SCFH, dry basis) (fuel meter run)	2.76E+07	2.86E+07	2.78E+07	***2.80E+07***	
via CO_2 "F_c Factor" (SCFH, dry basis) (fuel meter run)	2.75E+07	2.77E+07	2.72E+07	***2.75E+07***	
Calculated Emission Rates (via M-19 O_2 "F-factor")					
NO_X (lbs/hr)	**18.1**	**19.3**	**19.0**	***18.8***	**33.0**
CO (lbs/hr)	**10.7**	**9.0**	**8.4**	***9.3***	**43.0**
UHC as VOC (lbs/hr)	**0.22**	**0.02**	**0.35**	***0.20***	**2.0**

† Permitted capacity is at a reference of: 59°F inlet temperature, 60% relative humidity, and 14.7 psia ambient air pressure.

Table 3: Summary of Results
Unit P-13 Full Load Testing
Distillate Oil Fuel

Company: Florida Power Corporation
Plant: Intercession City Plant
Location: Intercession City, Osceola County, Florida
Technicians: TR, SO
Source: Unit P-13, a GE Frame 7EA Combustion Turbine

Test Number	P13-FO-1	P13-FO-2	P13-FO-3		
Date	5/30/02	5/30/02	5/30/02		
Start Time	15:32	16:44	17:58		FDEP
Stop Time	16:32	17:44	18:58		Permit
Power Turbine Operation				*Averages*	Limits
Generator Output (MW, DWATT)	78.9	78.6	79.8	***79.1***	
Heat Input (MMBtu/hr, LHV) (Mark V fuel meter)	867.6	862.0	867.0	***865.5***	**978†**
Turbine Capacity (Mfg.'s Curve, Generator Output vs. T-1)	81.0	81.0	82.3	***81.5***	
Percent Load (% of maximum heat input at inlet temp)	97.4%	97.0%	96.9%	***97.1%***	
Barometric Pressure ("Hg, AFPAP)	29.50	29.50	29.50	***29.50***	
Air Inlet Duct Losses ("H_2O, AFPCS)	2.80	2.80	2.90	***2.83***	
Specific Humidity (CMHUM)	0.0206	0.0209	0.0259	***0.0225***	
Compressor Inlet Temperature (°F, CTIM)	91	91	87	***90***	
Engine Compressor Discharge Pressure (psia, CPD)	163.0	162.9	164.0	***163.3***	
Compressor Discharge Temperature (°F, CTD)	716	717	709	***714***	
Mean Turbine Exhaust Temperature (°F, TTXM)	1048	1048	1047	***1048***	
Inlet Guide Vane Angle (degrees, CSGV)	84.0	84.0	84.0	***84.0***	
Water Injection Rate (WQ, lbs/sec)	12.34	12.24	11.43	***12.00***	
Water to Fuel Ratio (WQJ, unitless)	0.888	0.887	0.823	***0.866***	
Turbine Fuel Data (Distillate Oil Fuel)					
Fuel Heating Value (Btu/lb, HHV)	19495	19495	19495	***19495***	
Fuel Heating Value (Btu/lb, LHV)	17351	17351	17351	***17351***	
Fuel Specific Gravity	0.8493	0.8493	0.8493	***0.8493***	
Sulfur in Fuel (% weight in fuel oil)	0.040	0.040	0.040	***0.040***	**0.05**
O_2 "F_d Factor" (DSCFex/MMBtu @ 0% excess air)	9167	9167	9167	***9167***	
CO_2 "F_c Factor" (DSCFex/MMBtu @ 0% excess air)	1444	1444	1444	***1444***	
Oil Fuel Flow (FQLM1, lbs/sec, from Mark V)	13.9	13:8	13.9	***13.9***	
Heat Input (MMBtu/hr, Higher Heat Value)	974.8	968.5	974.1	***972.5***	
Ambient Conditions					
Atmospheric Pressure ("Hg)	29.74	29.80	29.75	***29.76***	
Temperature (°F): Dry bulb	93.0	84.0	84.0	***87.0***	
(°F): Wet bulb	76.0	77.5	77.0	***76.8***	
Humidity (lbs moisture/lb of air)	0.0150	0.0184	0.0180	***0.0171***	
Measured Emissions					
NO_X (ppmv, dry basis)	40.79	42.38	44.65	***42.60***	
NO_X (ppmv, dry @ 15% excess O_2)	**35.6**	**37.3**	**39.3**	***37.4***	**42.0**
NO_X (ppmv @ 15% O_2, ISO Day)	38.7	43.2	45.7	***42.5***	
CO (ppmv, dry basis)	4.02	3.48	3.02	***3.51***	
CO (ppmv, dry @15% excess O_2)	3.51	3.06	2.66	***3.08***	**20.0**
UHC (ppmv, wet basis)	0.60	0.01	1.42	***0.68***	**4.0**
Visible Emissions (% opacity)	N/A	0	N/A	**0**	**10**
O_2 (% volume, dry basis)	14.14	14.19	14.19	***14.17***	
CO_2 (% volume, dry basis)	4.98	4.99	4.95	***4.97***	
F_o (fuel factor, range = 1.260 to 1.413 for FO)	1.36	1.34	1.36	***1.35***	
Stack Volumetric Flow Rates					
via O_2 "F_d Factor" (SCFH, dry basis)	2.76E+07	2.77E+07	2.78E+07	***2.77E+07***	
via CO_2 "F_c Factor" (SCFH, dry basis)	2.83E+07	2.80E+07	2.84E+07	***2.82E+07***	
Calculated Emission Rates (via M-19 O_2 "F-factor")					
NO_X (lbs/hr)	**138**	**142**	**152**	***144***	**169.0**
CO (lbs/hr)	**8.3**	**7.1**	**6.2**	***7.2***	**44.0**
UHC as VOC (lbs/hr)	**0.77**	**0.01**	**1.84**	***0.87***	**5.0**

† Permitted capacity is at a reference of: 59°F inlet temperature, 60% relative humidity, and 14.7 psia ambient air pressure.

Table 4: Summary of Results
Unit P-14 Full Load Testing
Natural Gas Fuel

Company: Florida Power Corporation
Plant: Intercession City Plant
Location: Intercession City, Osceola County, Florida
Technicians: TR, SO
Source: Unit P-14, a GE Frame 7EA Combustion Turbine

Test Number	P14-NG-1	P14-NG-2	P14-NG-3		
Date	5/28/02	5/28/02	5/28/02		
Start Time	12:25	13:45	15:07		FDEP Permit Limits
Stop Time	13:25	14:45	16:07		
Power Turbine Operation				*Averages*	
Generator Output (MW, DWATT)	78.9	77.9	77.3	***78.0***	
Heat Input (MMBtu/hr, LHV) (fuel meter run)	833.7	827.0	830.0	***830.2***	**905†**
Turbine Capacity (Mfg.'s Curve, Generator Output vs. T-1)	82.9	83.2	83.2	***83.1***	
Percent Load (% of maximum heat input at inlet temp)	95.2%	93.7%	92.9%	***93.9%***	
Barometric Pressure ("Hg, AFPAP)	29.8	29.7	29.7	***29.7***	
Air Inlet Duct Losses ("H_2O, AFPCS)	3.40	3.50	3.50	***3.47***	
Specific Humidity (CMHUM)	0.0224	0.0216	0.0214	***0.0218***	
Compressor Inlet Temperature (°F, CTIM)	85	84	84	***84***	
Engine Compressor Discharge Pressure (psia, CPD)	161.7	160.8	159.9	***160.8***	
Compressor Discharge Temperature (°F, CTD)	707	710	712	***710***	
Mean Turbine Exhaust Temperature (°F, TTXM)	1037	1038	1040	***1038***	
Inlet Guide Vane Angle (degrees, CSGV)	84.0	84.0	84.0	***84.0***	
Turbine Fuel Data (Natural Gas, FGT)					
Fuel Heating Value (Btu/lb, HHV)	23095	23095	23095	***23095***	
Fuel Heating Value (Btu/lb, LHV)	20807	20807	20807	***20807.3***	
Fuel Specific Gravity	0.5785	0.5785	0.5785	***0.5785***	
Sulfur in Fuel (grains/100 SCF of fuel gas)	0.012	0.012	0.012	***0.012***	**1.0**
O_2 "F_d Factor" (DSCFex/MMBtu @ 0% excess air)	8642	8642	8645	***8643***	
CO_2 "F_c Factor" (DSCFex/MMBtu @ 0% excess air)	1028	1028	1028	***1028***	
Gas Fuel Flow (FQG, lbs/sec from Mark V)	11.13	11.04	11.08	***11.08***	
Heat Input (MMBtu/hr, HHV, from Mark V)	925.4	917.9	921.2	***921.5***	
Ambient Conditions					
Atmospheric Pressure ("Hg)	29.83	29.83	29.80	***29.82***	
Temperature (°F): Dry bulb	87.0	90.0	91.0	***89.3***	
(°F): Wet bulb	76.0	77.0	78.0	***77.0***	
Humidity (lbs moisture/lb of air)	0.0164	0.0165	0.0172	***0.0167***	
Measured Emissions					
NO_X (ppmv, dry basis)	5.04	4.91	4.92	***4.96***	
NO_X (ppmv, dry @ 15% excess O_2)	**4.88**	**4.83**	**4.93**	***4.88***	**9.0**
NO_X (ppmv @ 15% O_2, ISO Day)	5.51	5.50	5.68	***5.56***	
CO (ppmv, dry basis)	9.93	10.07	8.99	***9.66***	
CO (ppmv, dry @15% excess O_2)	9.61	9.91	9.00	***9.51***	**20.0**
UHC (ppmv, wet basis)	0.49	0.22	0.18	***0.30***	**2.0**
Visible Emissions (% opacity)	N/A	N/A	0	***0***	**10**
O_2 (% volume, dry basis)	14.81	14.90	15.01	***14.90***	
CO_2 (% volume, dry basis)	3.47	3.47	3.42	***3.46***	
F_o (fuel factor, range = 1.600-1.836 for NG)	1.76	1.73	1.72	***1.73***	
Stack Volumetric Flow Rates (via EPA Method 19)					
via O_2 "F_d Factor" (SCFH, dry basis) (fuel meter run)	2.74E+07	2.76E+07	2.82E+07	***2.78E+07***	
via CO_2 "F_c Factor" (SCFH, dry basis) (fuel meter run)	2.74E+07	2.72E+07	2.77E+07	***2.74E+07***	
Calculated Emission Rates (via M-19 O_2 "F-factor")					
NO_X (lbs/hr)	**16.5**	**16.2**	**16.6**	***16.4***	**33.0**
CO (lbs/hr)	**19.8**	**20.2**	**18.5**	***19.5***	**43.0**
UHC as VOC (lbs/hr)	**0.61**	**0.27**	**0.23**	***0.37***	**2.0**

† Permitted capacity is at a reference of: 59°F inlet temperature, 60% relative humidity, and 14.7 psia ambient air pressure.

Table 5: Summary of Results
Unit P-14 Full Load Testing
Distillate Oil Fuel

Company: Florida Power Corporation
Plant: Intercession City Plant
Location: Intercession City, Osceola County, Florida
Technicians: TR, SO
Source: Unit P-14, a GE Frame 7EA Combustion Turbine

Test Number	P14-FO-1	P14-FO-2	P14-FO-3		
Date	5/5/02	5/5/02	5/5/02		
Start Time	16:44	17:56	19:06		FDEP Permit Limits
Stop Time	17:44	18:56	20:06		
Power Turbine Operation				*Averages*	
Generator Output (MW, DWATT)	80.8	81.6	82.1	***81.5***	
Heat Input (MMBtu/hr, LHV) (Mark V fuel meter)	873.8	879.5	883.8	***879.0***	**978†**
Turbine Capacity (Mfg.'s Curve, Generator Output vs. T-1)	82.0	83.0	83.0	***82.6***	
Percent Load (% of maximum heat input at inlet temp)	98.5%	98.4%	99.0%	***98.6%***	
Barometric Pressure ("Hg, AFPAP)	29.70	29.70	29.70	***29.70***	
Air Inlet Duct Losses ("H_2O, AFPCS)	3.50	3.50	3.50	***3.50***	
Specific Humidity (CMHUM)	0.0246	0.0253	0.0254	***0.0251***	
Compressor Inlet Temperature (°F, CTIM)	88	85	85	***86***	
Engine Compressor Discharge Pressure (psia, CPD)	165.2	166.0	166.6	***165.9***	
Compressor Discharge Temperature (°F, CTD)	717	713	711	***714***	
Mean Turbine Exhaust Temperature (°F, TTXM)	1041	1040	1040	***1040***	
Inlet Guide Vane Angle (degrees, CSGV)	84.0	84.0	84.0	***84.0***	
Water Injection Rate (WQ, lbs/sec)	12.03	11.99	12.01	***12.01***	
Water to Fuel Ratio (WQJ, unitless)	0.860	0.852	0.849	***0.853***	
Turbine Fuel Data (Distillate Oil Fuel)					
Fuel Heating Value (Btu/lb, HHV)	19495	19495	19495	***19495***	
Fuel Heating Value (Btu/lb, LHV)	17351	17351	17351	***17351***	
Fuel Specific Gravity	0.8493	0.8493	0.8493	***0.8493***	
Sulfur in Fuel (% weight in fuel oil)	0.040	0.040	0.040	***0.040***	**0.05**
O_2 "F_d Factor" (DSCFex/MMBtu @ 0% excess air)	9167	9167	9167	***9167***	
CO_2 "F_c Factor" (DSCFex/MMBtu @ 0% excess air)	1444	1444	1444	***1444***	
Oil Fuel Flow (FQLM1, lbs/sec, from Mark V)	14.0	14.1	14.2	***14.1***	
Heat Input (MMBtu/hr, Higher Heat Value)	981.8	988.2	993.1	***987.7***	
Ambient Conditions					
Atmospheric Pressure ("Hg)	29.80	29.80	29.80	***29.80***	
Temperature (°F): Dry bulb	92.0	82.0	78.0	***84.0***	
(°F): Wet bulb	78.0	76.0	74.0	***76.0***	
Humidity (lbs moisture/lb of air)	0.0170	0.0176	0.0168	***0.0171***	
Measured Emissions					
NO_X (ppmv, dry basis)	39.86	40.47	40.08	***40.14***	
NO_X (ppmv, dry @ 15% excess O_2)	**34.7**	**35.2**	**34.9**	***34.9***	**42.0**
NO_X (ppmv @ 15% O_2, ISO Day)	39.3	40.7	39.7	***39.9***	
CO (ppmv, dry basis)	9.31	4.83	10.18	***8.10***	
CO (ppmv, dry @15% excess O_2)	8.09	4.20	8.85	***7.05***	**20.0**
UHC (ppmv, wet basis)	0.12	0.22	0.00	***0.11***	**4.0**
Visible Emissions (% opacity)	N/A	0	N/A	**0**	**10**
O_2 (% volume, dry basis)	14.11	14.11	14.11	***14.11***	
CO_2 (% volume, dry basis)	4.95	4.96	4.99	***4.97***	
F_o (fuel factor, range = 1.260 to 1.413 for FO)	1.37	1.37	1.36	***1.37***	
Stack Volumetric Flow Rates					
via O_2 "F_d Factor" (SCFH, dry basis)	2.77E+07	2.79E+07	2.80E+07	***2.79E+07***	
via CO_2 "F_c Factor" (SCFH, dry basis)	2.86E+07	2.87E+07	2.88E+07	***2.87E+07***	
Calculated Emission Rates (via M-19 O_2 "F-factor")					
NO_X (lbs/hr)	**136**	**139**	**138**	***138***	**169.0**
CO (lbs/hr)	**19.4**	**10.1**	**21.3**	***16.9***	**44.0**
UHC as VOC (lbs/hr)	**0.16**	**0.29**	**0.00**	***0.15***	**5.0**

† Permitted capacity is at a reference of: 59°F inlet temperature, 60% relative humidity, and 14.7 psia ambient air pressure.

PROCESS DESCRIPTION

Florida Power Corporation is the owner and operator of the Intercession City Power Plant near Intercession City, Florida. Emissions testing was conducted on two turbines in operation at that facility and this section of the test report provides a brief description of these units.

The facility utilizes these units to provide electricity to the local power grid. The turbines are General Electric Frame 7EA simple-cycle units. Dry-low NOx burners are utilized for NOx control when fueled by natural gas. Water injection is utilized for NOx control when fueled by No. 2 fuel oil.

Unit exhaust is vented to the atmosphere through a 9 ft X 19 ft rectangular stack approximately 56 ft above grade. Seven sample ports meeting EPA criteria are provided at the 45 ft level.

ANALYTICAL TECHNIQUE

The sampling and analysis procedures used during these tests conformed in principle with those outlined in the Code of Federal Regulations, Title 40, Part 60, Appendix A, Methods 1, 3a, 9, 10, 19, 20, and 25a and ASTM methodology for the fuel analyses. The test procedures are discussed below. The stack gas analyses for NO_X, CO, THC/VOC, CO_2, and O_2 were performed by continuous instrumental monitors. Table 6 lists the instruments and detection principles used for these analyses.

The test matrix for each unit consisted of continuously monitoring NOx, CO, THC/VOC, CO_2, and O_2 concentrations at base throughout three 1-hour test runs. Ten 6-minute opacity observations were also conducted while operating at base load. A fuel sample was collected and subsequently analyzed for composition and total sulfur content. Method 19 stoichiometric calculations were utilized for all emission rate calculations. These procedures were performed while the units were fueled by natural gas, and subsequently while the units were fueled by distillate fuel oil.

The sampling and analysis system used to determine exhaust emission concentrations of NOx, CO, O_2, CO_2, and THC/VOC is depicted in Figure 1. Stack gas entered the sample system through a heated stainless steel probe with a glass wool filter. The sample was transported via 3/8-inch heat-traced Teflon® tubing using a stainless steel/Teflon® diaphragm pump to the wet portion of the sample manifold. This feature is designed to ensure that no condensation of heavy hydrocarbons will occur during THC sampling. The sample was then delivered to a Hartmann and Braun® sample conditioner, which dried the sample without removing the pollutants of interest before being passed back to the dry portion of the sample manifold. From the dry manifold, the sample was partitioned to the analyzers through glass and stainless steel rotameters that controlled the flow of the sample.

Figure 1 shows that the sampling system was equipped with a separate path through which a calibration gas could be delivered to the probe and back through the entire sampling system. This allowed for convenient performance tests of system bias checks and calibrations as required by the testing methods.

All instruments were housed in an air-conditioned mobile laboratory. Gaseous calibration standards were provided in aluminum cylinders with the concentrations certified by the vendor.

All data from the continuous monitoring instruments were recorded on two synchronized 3-pen strip chart recorders. These recorders were operated at a chart speed of 30 centimeters/hour and recorded over a 25-centimeter width. Strip chart records may be found in Appendix F of this report.

EPA Method 1 was utilized for selection of the traverse points for the compliance testing. The stack configurations and sample port locations did meet EPA Method 1 criteria.

The O_2 and CO_2 concentration measurements used in determination of stack gas molecular weight were measured in accordance with the procedures of EPA Method 3a and 20. Instrumental analyses were used in lieu of the Orsat or Fyrite techniques. A paramagnetic O_2 analyzer and an infrared absorption CO_2 analyzer were utilized for these emission tests.

EPA Method 9 was utilized for opacity observations throughout thirty 6-minute readings. The opacity observer has been EPA certified per Method 9. Method 9 Observation Worksheets can be found in Appendix H.

CO concentrations were quantified during the tests in accordance with procedures set forth in EPA Method 10. A continuous non-dispersive infrared (NDIR) analyzer was used for this purpose.

EPA Method 19 stoichiometric formulas were used for calculation of stack volumetric flow rates and mass emission rates of NOx, CO, SO_2 and VOC. These calculations were based on the fuel analysis data, diluent O_2 measurements, and plant provided fuel flow rates. Method 19 stoichiometry was also utilized as a means to calculate the moisture content of the stack gas.

Method 20 was used for measurement of NO_X and O_2 concentrations. A chemiluminescent cell analyzer was used for the NOx measurements and a paramagnetic analyzer utilized for the O_2 measurements.

In addition to the instrument test method requirements (Methods 10 and 20). Method 6c quality assurance procedures were also utilized throughout the testing in any cases where the Method 6c criterion is more stringent that another method requirements. For example, all zero/span checks were conducted through the entire sample system, which is not required by Methods 10 or 20. Additionally, Equation 6c-1 was used to correct all emission concentrations for zero and span drift.

VOC testing included measuring "total" hydrocarbons on a wet basis using a CAI (California Analytical Instrumentation) flame ionization analyzer

calibrated in accordance with EPA Method 25a. Per the discussions, VOC emissions were determined based on THC measurements and the non-methane, non-ethane fraction of the fuel as found from the fuel analyses. Methane calibration standards were utilized for the tests and the emission concentrations are reported as methane equivalents and the mass emission rates were calculated using the molecular weight of methane.

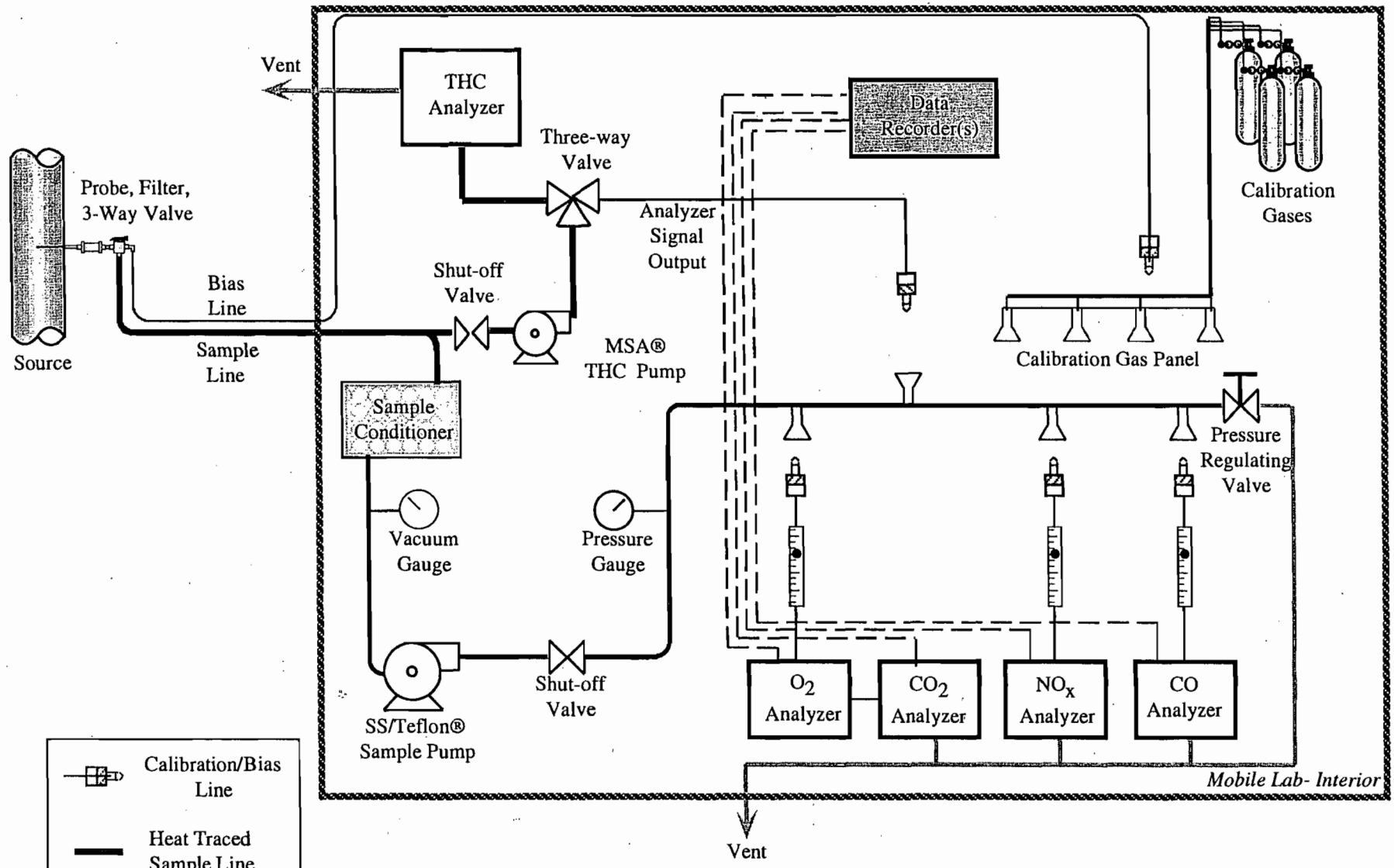
Atmospheric pressure was measured at the test site using a calibrated digital barometer. Ambient temperature and humidity were quantified during each test run via sling psychrometry.

Plant personnel provided key operational data. This data included turbine megawatts, fuel flow rates, and compressor discharge pressures. All plant provided operational data is contained in Appendix C.

TABLE 6
ANALYTICAL INSTRUMENTATION

Cubix Laboratory #603					
Parameter	**Model and Manufacturer**	**Common Ranges**	**Sensitivity**	**Response Time**	**Detection Principle**
NOx	API 200AH	0-10 ppm 0-100 ppm 0- 200 ppm 0-500 ppm 0-1000 ppm 0-5000 ppm	0.04 ppm	10 sec.	Thermal reduction of NO_2 to NO. Chemiluminescence reaction of NO with O_3. Detection by PMT. Inherently linear for listed ranges.
CO	Hartmann & Braun Uras 14	0-10 ppm 0-30 ppm 0-50 ppm 0-100 ppm 0-500 ppm 0-1000 ppm 0-5000 ppm	0.05 ppm	10 sec.	Infrared absorption, Microprocessor based linearization.
O_2	Hartman & Braun Magnos 16	0-5 % 0-25%	0.03%	10 sec.	Paramagnetic cell, Inherently linear.
CO_2	Hartmann & Braun Uras 14	0-5 % 0-25 %	0.03%	10 sec.	Infrared absorption, solid state detector.
THC	California Analytical 300-HFID	0-10 ppm 0-100 ppm 1-1K ppm 0-10K ppm 0-100K ppm	0.2 ppm	5 sec.	Flame ionization of Hydrocarbons inherently linear over 2 orders of magnitude.

FIGURE 1
INSTRUMENTAL SAMPLE SYSTEM DIAGRAM



Cubix Corporation

QUALITY ASSURANCE ACTIVITIES

A number of quality assurance activities were undertaken before, during, and after this testing project to ensure the accuracy of results obtained. This section of the report and the documentation contained in Appendices D and E describe each quality assurance activity that was performed.

With the exception of the fuel analysis, all sampling and analyses were conducted on-site to afford any interested parties the opportunity to observe all aspects of the test and to circumvent the possibility of sample loss or contamination during transport.

Each instrument's response was checked and adjusted in the field prior to the collection of data via multi-point calibration. The instrument's linearity was checked by first adjusting the zero and span responses to zero (nitrogen) and an upscale calibration gas in the range of the expected concentrations. The instrument response was then challenged with other calibration gases of known concentration and accepted as being linear if the response of the other calibration gases agreed within $\pm$ 2 percent of range of the predicted values. The strip chart excerpts that present the results of the initial multi-point linearity test are provided in Appendix D as are the Quality Assurance Worksheets.

In addition to the initial linearity checks, the calibration error checks were repeated as required throughout the tests. Anytime an adjustment was made to an analyzer, the calibration error test was repeated. Adjustment to the analyzer could have occurred for one of three reasons. If the post test run calibration check showed that the analyzer drift was approaching 3% (2% for Method 20), the technician may have chosen to reset the analyzer back to the correct setting before continuing with the next test run. If the drift exceeded 3% (but was less than 5%), the run is considered valid; however, adjustment to the analyzer is made before additional tests are conducted. Additionally, the analyzer span values could be changed. Anytime an adjustment was made to an analyzer for one of these reasons, the calibration error check (and bias check) was repeated before continuing. The Quality Assurance Worksheets of Appendix D summarize these calibration error checks.

Before and after each test run, the analyzers were checked for zero and span drift. This allowed each test run to be bracketed by calibrations and documented the precision of the data just collected. Documentation of drift also allowed for the use of Equation 6c-1 for correction of the observed emission concentrations. Calibrations were made through the entire sample system (via the bias check valve) at the end of every test run. The criterion for acceptable

data is that the instrument drift is no more than 3 percent of the full-scale response. The quality assurance worksheets in Appendix D summarize all multipoint calibration checks and zero to span checks performed during the tests. These worksheets (as prepared from the strip chart records of Appendix F) show that there were no drifts in excess of 5% and that additional calibration error and bias checks were conducted for any drifts in excess of 3% (2% for Method 20).

Use of Equation 6c-1 requires documentation of both the initial and final zero and calibration responses. When two consecutive test runs were conducted one after the other, the final drift for the previous run was used for the initial calibration response of the subsequent run. In cases where there was a sufficient delay between test runs to deem this strategy invalid, a separate initial calibration was conducted and the response from this calibration was used in Equation 6c-1.

The instrumental sampling system was leak checked by demonstrating that a vacuum greater than 10" Hg could be held for at least 1 minute with a decline of less than 1" Hg. A leak test was conducted after a sample system was set up and before that system was dismantled. These tests were conducted to ensure that ambient air had not diluted the sample. Any leakage detected prior to the tests was repaired and another leak check conducted before testing commenced. No leaks were found during the post test leak checks.

The absence of leaks in the sampling system was also verified by system bias checks. The sampling system's integrity was tested by comparing the responses of each of the analyzers used to a calibration gas introduced via two paths. The first path was into the analyzer via the zero/span calibration manifold via the calibration error check. The second path was to introduce a calibration gas into the sample system at the sample probe via the calibration line and switching valve. Any difference in the instrument responses by these two methods was attributed to sampling system bias or leakage. Bias checks were conducted prior to and upon completion of testing for all analyzers. Examination of the strip chart excerpts in Appendix D show that the analyzer responses via both sample paths agreed within acceptable limits in all cases.

Bias checks were also conducted at other times throughout the tests as required by the test method. Anytime adjustment to the analyzer or drift in excess of 3% was recorded necessitated a repeat of the calibration error check, the bias check was also repeated. All bias check results are summarized in the Quality Assurance Worksheets of Appendix D.

Prior to testing on each unit, a NO_X converter efficiency check was conducted as required by EPA Methods 7e and 20. To conduct this test, a NO_X calibration gas was blended with air in a Tedlar® bag. Over a 30-minute

period, the NO_X concentration was monitored and the NO concentration checked at 5-minute intervals via bypassing of the converter. As shown on the Instrumental Quality Assurance Worksheet of Appendix D, there was no appreciable drop in NO_X concentration (<2%) over the 30-minute period. Appendix D provides the results of the initial converter efficiency check.

Interference response tests on the instruments were conducted by the instrument vendors and Cubix Corporation on the NO_X, CO, CO_2, and O_2, analyzers. The sum of the interference responses for H_2O, NO_X, CO, SO_2, CO_2 and O_2 (as appropriate for each analyzer) are less than 2 percent of the applicable full-scale span value. The instruments used for the tests meet the performance specifications for EPA Methods 3a, 20, 7e, and 10. The results of these direct interference tests are available in Appendix E of this report.

The residence time of the sampling and measurement system was estimated using the pump flow rate and the sampling system volume. The pump's rated flow is 0.8 SCFM at 5 psig. The sampling system volume is 0.13 scf. Therefore, the sample residence time is approximately 10 seconds.

Response time tests were conducted on site on the sample system utilized during the tests. These tests were conducted simultaneously with the initial bias checks and are documented on the Instrumental Quality Assurance Worksheet of Appendix D. Method 20 response time tests were also conducted for the NOx and O_2 sample systems. The response times were found to be just less than one minute.

The control gases used to calibrate the instruments were analyzed and certified by the compressed gas vendors to ± 1% accuracy or EPA Protocol 1. The gas calibration sheets as prepared by the vendor are contained in Appendix E.

Appendix E contains calibration data on the digital barometer used during this testing.

Cubix collected and reported the enclosed test data in accordance with the procedures and quality assurance activities described in this test report. Cubix makes no warranty as to the suitability of the test methods. Cubix assumes no liability relating to the interpretation and use of the test data.

11-30-03
ARMS Upda
Bure

Progress Energy

RECEIVED
SEP 22 2003
DIVISION OF AIR
RESOURCE MANAGEMENT

September 16, 2003

Mr. Michael Cooke, Director
Florida Department of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Rd. MS 5500
Tallahassee, FL 32399-2400

Subject: Additional Responsible Officials for Title V – Florida Power Corporation d/b/a Progress Energy Florida Intercession City Plant and Avon Park Plant

Dear Mr. Cooke:

As the Responsible Official for the Intercession City Plant and the Avon Park Plant, I am submitting a Department of Environmental Protection form 62-213.900(8) for each plant to identify additional Responsible Officials.

If you have any questions, please contact me at (863) 679-3020.

Very truly yours,

Kris Edmondson

Kris Edmondson

Attachments

c: Mr. Paul V. Crimi
Mr. William Dudley
Mr. J. Michael Kennedy
Mr. Leonard Kozlov (FL-DEP)
Mr. Scott Sheplak (FL-DEP)

Department of Environmental Protection

Division of Air Resource Management

RESPONSIBLE OFFICIAL NOTIFICATION FORM

RECEIVED
SEP 22 2003
DIVISION OF AIR RESOURCE MANAGEMENT

Note: A responsible official is not necessarily a designated representative under the Acid Rain Program. To become a designated representative, submit a certificate of representation to the U.S. Environmental Protection Agency (EPA) in accordance with 40 CFR Part 72.24.

Identification of Facility

1. Facility Owner/Company Name: Florida Power Corporation d/b/a Progress Energy Florida, Inc.	
2. Site Name: **Intercession City Plant**	3. County: Osceola County
4. Title V Air Operation Permit/Project No. *(leave blank for initial Title V applications)*: 0970014-007-AV	

Notification Type *(Check one or more)*

__ **INITIAL**:	Notification of responsible officials for an initial Title V application.
__ **RENEWAL**:	Notification of responsible officials for a renewal Title V application.
X **CHANGE**:	Notification of change in responsible official(s).
	Effective date of change in responsible official(s) September 10, 2003

Primary Responsible Official

1. Name and Position Title of Responsible Official: Kris Edmondson – Plant Manager Central CT Sites

11-20-03 ARMS Updated. BM

2. Responsible Official Mailing Address:
   Organization/Firm: Progress Energy Florida, Inc.
   Street Address: 100 Central Ave. Mail Code IC44
   City: St. Petersburg State: FL Zip Code: 33701

3. Responsible Official Telephone Numbers:
   Telephone: (863)679-3020 Fax: (863) 679-3055

4. Responsible Official Qualification *(Check one or more of the following options, as applicable)*:

[X] For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

[ ] For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

[ ] For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

[ ] The designated representative at an Acid Rain source.

5. Responsible Official Statement:

I, the undersigned, am a responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this notification. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this notification are true, accurate and complete. Further, I certify that I have authority over the decisions of all other responsible officials, if any, for purposes of Title V permitting.

Kyle A. Edmondson — Signature

09/16/03 — Date

Additional Responsible Official

1. Name and Position Title of Responsible Official:
William Dudley, Production Manager – CT

2. Responsible Official Mailing Address:
Organization/Firm: Progress Energy Florida, Inc.
Street Address: 100 Central Ave. Mail Code IC44
City: St. Petersburg State: FL Zip Code: 33701

3. Responsible Official Telephone Numbers:
Telephone: (863) 679-3030 Fax: (863) 679-3055

4. Responsible Official Qualification *(Check one or more of the following options, as applicable)*:

[X] For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

[ ] For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

[ ] For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

[ ] The designated representative at an Acid Rain source.

RECEIVED
SEP 22 2003
DIVISION OF AIR
RESOURCE MANAGEMENT

11-20-03
ARMS Updated
Bww

Additional Responsible Official

1. Name and Position Title of Responsible Official:
Paul V. Crimi, General Manager CT Operations

2. Responsible Official Mailing Address:
Organization/Firm: Progress Energy Florida, Inc.
Street Address: 100 Central Ave. Mail Code BB1C
City: St. Petersburg State: FL Zip Code: 33701

3. Responsible Official Telephone Numbers:
Telephone: (727) 826-4224 Fax: (727) 826-4222

4. Responsible Official Qualification *(Check one or more of the following options, as applicable)*:

[X] For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

[ ] For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

[ ] For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

[ ] The designated representative at an Acid Rain source.

11-20-03
ARMS Updated
Bww

Additional Responsible Official

1. Name and Position Title of Responsible Official:
J. Michael Kennedy, Manager Permitting & Compliance, DR

2. Responsible Official Mailing Address:
Organization/Firm: Progress Energy Florida, Inc.
Street Address: 100 Central Ave. Mail Code BB1A
City: St. Petersburg State: FL Zip Code: 33701

11-20-03
ARMS Updated

3. Responsible Official Telephone Numbers:
Telephone: (727) 826-4334 Fax: (727) 826-4216

4. Responsible Official Qualification *(Check one or more of the following options, as applicable)*:

[ ] For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

[ ] For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

[ ] For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

[X] The designated representative at an Acid Rain source.

Progress Energy

RECEIVED
SEP 16 2003
DIVISION OF AIR
RESOURCE MANAGEMENT

Progress Energy Florida, Inc
Bayboro Plant
160 13th Ave., S.
St. Petersburg, FL 33701

Bruce M. Baldwin
Vice President
CT – Operations Department
(727) 826-4201

September 10, 2003

Mr. Howard Rhodes, Director
Florida Department of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Rd. MS 5500
Tallahassee, FL 32399-2400

Subject: Alternate Responsible Officials: Title V Air Permits

Dear Mr. Rhodes:

This letter is intended to delegate the alternate "responsible officials" for Title V air permits for Florida Power Corporation d/b/a Progress Energy Florida combustion turbine facilities. All delegations are made in accordance with a corporate procedure, and each person is duly qualified in accordance with applicable statute and regulation. The delegations being made today are noted on Attachment 1. Each facility will submit a Department of Environmental Protection form 62-213.900(8) at a later date.

By copy of this letter, notification of this delegation is provided to individuals newly authorized to sign on behalf of the company. This letter supersedes and negates any previous correspondence relating to the responsible officials for these facilities. Delegations for Progress Energy facilities not referenced in this letter and provided to you previously are not changed.

Very truly yours,

Bruce M. Baldwin
Vice President – Combustion Turbine Operations

Attachment
C: Mr. Reginald D. Anderson
Mr. Ernie L. Bass
Mr. Paul V. Crimi
Mr. Martin J. Drango
Mr. William Dudley
Mr. Kris Edmondson
Mr. Wilson B. Hicks, Jr.
Mr. David R. Karp
Mr. J. Michael Kennedy
Mr. Leonard Kozlov (FL-DEP)
Mr. George Kerst
Mr. Mike W. Lentz
Mr. Dennis A. Merrick
Mr. Scott Sheplak (FL-DEP)
Mr. Roger B. Zirkle

Attachment 1
Progress Energy Florida Combustion Turbine
Title V Responsible Officials

Facility	Current RO: Plant Managers	Alternate: General Manager CT Operations	Alternate: Production Managers - CT	Alternate: DR if applicable
Avon Park	Kris Edmondson	Paul V. Crimi	William Dudley	
Bayboro	Mike W. Lentz	Paul V. Crimi	David R. Karp	
DeBary	Martin J. Drango	Paul V. Crimi	Reginald D. Anderson	J. Michael Kennedy
Higgins	Mike W. Lentz	Paul V. Crimi	David R. Karp	
Hines	Roger B. Zirkle	Paul V. Crimi	George Kerst	J. Michael Kennedy
Intercession City	Kris Edmondson	Paul V. Crimi	William Dudley	J. Michael Kennedy
Rio Pinar	Martin J. Drango	Paul V. Crimi	Reginald D. Anderson	
Tiger Bay	Roger B. Zirkle	Paul V. Crimi	Dennis A. Merrick	J. Michael Kennedy
Turner	Martin J. Drango	Paul V. Crimi	Reginald D. Anderson	
University of Florida Cogen	Wilson B. Hicks, Jr.	Paul V. Crimi	Ernie L. Bass	J. Michael Kennedy

Progress Energy

RECEIVED
MAY 25 2004
BUREAU OF AIR REGULATION

May 24, 2004

Michael P. Halpin, P.E.
DEP/DARM
North Permitting Section
Division of Air Resource Management
2600 Blair Stone Road MS 5500
Tallahassee, Florida 32399-2400

Re: Hines Energy Complex Power Block 2 – Permit PSD –FL-296, PA92-33

Dear Mr. Halpin:

Thank you very much for your letter dated February 24th 2004 regarding our request to increase the start-up time. We have elected to withdraw our request for additional startup time. We are evaluating our options and may make an alternative request at a later point in time.

Please proceed with the Hines Power Block 2 Title V application.

If you have any questions, please contact me at (727) 826-4187. Thank you for processing the Title V application.

Best Regards,

Dave Meyer

Dave Meyer, P.E.
Senior Environmental Specialist

XC: Roger Zirkle
Ken Kosky, Golder
Q. Kissel, SWD
B. Oven, PPSO
G. Worley, EPA
J. Bunyak, NPS

Holtom, Jonathan

From: Carter, Kathy
Sent: Wednesday, October 09, 2002 4:32 PM
To: Holtom, Jonathan
Cc: Chisolm, Jack
Subject: extension request

Jonathan:

OGC received a request for extension of time from Florida Power Corp. (0970014-007-AV). Jack Chisolm will assign.

Kathy C. Carter
Agency Clerk for the
Department of Environmental Protection
Office of General Counsel
#SC205-2212 FAX SC205-2303
(850) 245-2212 Fax 245-2303
Kathy.Carter@dep.state.fl.us

-file-

Florida Power
A Progress Energy Company

September 25, 2002

RECEIVED
SEP 27 2002
BUREAU OF AIR REGULATION

Mr. Scott Sheplak, P.E.
Florida Department of Environmental Protection
Bureau of Air Regulation, Title V Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Intercession City Facility
Title V Permit Renewal Application
File No.: 0970014-007-AV
Response to Request for Additional Information

Dear Mr. Sheplak:

In regards to your letter dated August 13, 2002 requesting additional information related to the above referenced application, please see the response below. The two items noted in the August 13th letter are repeated for clairity.

Item 1

The Acid Rain application that was submitted with the Title V renewal application was not a current application. Your updated Acid Rain application was received on August 7, 2002.

Response:

As noted, this information was previously provided. No additional response is required.

Item 2

CT 7 through 11 are subject to Subpart GG, which requires water-to-fuel monitoring when water injection is used to control NOx emissions. Your application states that the use of the Acid Rain NOx CEMS satisfies the requirements of Continuous Assurance Monitoring (CAM). Pursuant to 40 CFR 64.2(b)(vi), continuous emissions monitoring can provide an exemption for CAM if the continuous emissions monitor is required for a continuous demonstration of compliance, and not just for monitoring purposes. Because your NOx CEMS is not currently required (for these units) for continuous compliance, it does not provide the intended exemption from CAM applicability. Please provide either a certified statement that you wish to have your Acid Rain NOx CEMS imposed as a continuous compliance determination method or provide a complete CAM plan submittal for the referenced CTs.

Response:

Florida Power is willing to accept the use of the existing Acid Rain NOx CEMS as the continuous compliance determination method for Units P7-P11, in lieu of annual compliance testing, provided that the averaging time of the CEMS data is based on a 24-hour block (midnight-to-midnight) average and that provisions to exclude inappropriate data (startup, shutdown, malfunction, etc.) from the average are allowed. Monitoring conditions similar to those that currently exist in Permit PSD-FL-268A for Units P12-P14 at this facility are requested.

If the appropriate conditions related to the incorporation of the NOx CEMS as the continuous compliance methodology for Units P7-P11 cannot be agreed upon, Florida Power will submit a CAM Plan to address these units.

If you have any questions regarding any of the information, please contact Jamie Hunter at (727) 826-4363.

Sincerely,

Kris Edmondson
Plant Manager/Responsible Official

c: Jonathan Holtom, P.E., FDEP – Tallahassee Office
Leonard Kozlov, FDEP - Central District Office
Ken Kosky, P.E., Golder Associates Inc.

jjh/JJH044

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

August 13, 2002

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Martin J. Drango, P.E., Plant Manager
Florida Power / Progress Energy
6525 Osceola Polk County Line Road
Intercession City, Florida 33848

Re: Request for Additional Information Regarding Title V Permit Renewal Application
File No.: 0970014-007-AV
Intercession City Facility

Dear Mr. Drango:

The Title V permit renewal application for the Intercession City Facility was received in a timely manner (July 1, 2002). However, in order to continue processing this application, the Department is requesting the additional information outlined below. Should your response to any of the listed items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

1. The Acid Rain application that was submitted with the Title V renewal application was not a current application. Your updated Acid Rain application was received on August 7, 2002.

2. CT 7 through CT 11 are subject to Subpart GG, which requires water-to-fuel monitoring when water injection is used to control NO_X emissions. Your application states that the use of the Acid Rain NO_X CEMS satisfies the requirements of Compliance Assurance Monitoring (CAM). Pursuant to 40 CFR 64.2(b)(vi), continuous emissions monitoring can provide an exemption from CAM if the continuous emissions monitor is required for a continuous demonstration of compliance, and not just for monitoring purposes. Because your NO_X CEMS is not currently required (for these units) for continuous compliance, it does not provide the intended exemption from CAM applicability. Please provide either a certified statement that you wish to have your Acid Rain NO_X CEMS imposed as a continuous compliance determination method or provide a complete CAM plan submittal for the referenced CTs.

The above comments require a written response to the Department within ninety days of receipt of this notice unless additional time is requested pursuant to Rule 62-213.420(1)(b)6., F.A.C. If you should have any questions, please contact Jonathan Holtom, P.E., at (850) 921-9531, or me at (850) 921-9532.

Sincerely,

Scott M. Sheplak, P.E.
Administrator
Title V Section

SMS/jh

CC: Mr. Kennard F. Kosky, P.E., Golder Associates
Mr. Jamie Hunter, Florida Power
Mr. Len Kozlov, DEP, Central District Office

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Martin J. Drango, P.E.
Plant Manager
Florida Power/Progress Energy
6525 Osceola Polk County Line Road
Intercession City, Florida 33848

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)*: Sandra Durstan — B. Date of Delivery: 8-19-02

C. Signature: X Sandra Durstan ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes ☒ No
If YES, enter delivery address below:
PO Box 368

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)*
7000 0600 0021 6524 3363

PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

7000 0600 0021 6524 3363

Article Sent To:
Mr. Martin J. Drango, P.E.

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here

Name (Please Print Clearly) (to be completed by mailer)
Mr. Martin J. Drango, P.E.
Street, Apt. No.; or PO Box No.
6525 Osceola Polk County Line Road
City, State, ZIP+4
Intercession City, Florida 33848

PS Form 3800, July 1999 See Reverse for Instructions

Department of Environmental Protection

Division of Air Resource Management

RESPONSIBLE OFFICIAL NOTIFICATION FORM

Note: A responsible official is not necessarily a designated representative under the Acid Rain Program. To become a designated representative, submit a certificate of representation to the U.S. Environmental Protection Agency (EPA) in accordance with 40 CFR Part 72.24.

Identification of Facility

1. Facility Owner/Company Name: Florida Power Corporation	
2. Site Name: **Intercession City Plant**	3. County: Osceola County
4. Title V Air Operation Permit/Project No. *(leave blank for initial Title V applications)*: 970014-004-AV	

Notification Type *(Check one or more)*

__	**INITIAL:**	Notification of responsible officials for an initial Title V application.
__	**RENEWAL:**	Notification of responsible officials for a renewal Title V application.
X	**CHANGE:**	Notification of change in responsible official(s).
		Effective date of change in responsible official(s) July 8, 2002

Primary Responsible Official

1. Name and Position Title of Responsible Official: Kris Edmondson – Plant Manger Central CT Sites

2. Responsible Official Mailing Address:
Organization/Firm: Florida Power Corporation
Street Address: 100 Central Avenue MAC: IC44
City: St. Petersburg State: FL Zip Code: 33701

3. Responsible Official Telephone Numbers:
Telephone: (863)679-3020 Fax: (863) 679-3055

4. Responsible Official Qualification *(Check one or more of the following options, as applicable)*:

[X] For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

[ ] For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

[ ] For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

[ ] The designated representative at an Acid Rain source.

5. Responsible Official Statement:

I, the undersigned, am a responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this notification. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this notification are true, accurate and complete. Further, I certify that I have authority over the decisions of all other responsible officials, if any, for purposes of Title V permitting.

Kris F. Eberle — Signature

July 12, 2002 — Date

Additional Responsible Official

1. Name and Position Title of Responsible Official:
William Dudley, Production Manager – CT

2. Responsible Official Mailing Address:
Organization/Firm: Florida Power Corporation
Street Address: 100 Central Avenue MAC: IC44
City: St. Petersburg State: FL Zip Code: 33701

3. Responsible Official Telephone Numbers:
Telephone: (863) 679-3030 Fax: (863) 679-3055

4. Responsible Official Qualification *(Check one or more of the following options, as applicable)*:

[X] For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

[ ] For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

[ ] For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

[ ] The designated representative at an Acid Rain source.

Additional Responsible Official

1. Name and Position Title of Responsible Official:
David Sorrick, General Manager CT Operations, Florida

2. Responsible Official Mailing Address:
Organization/Firm: Florida Power Corporation
Street Address: 100 Central Avenue MAC: BB1C
City: St. Petersburg State: FL Zip Code: 33701

3. Responsible Official Telephone Numbers:
Telephone: (727)826-4026 Fax: (727)826-4222

4. Responsible Official Qualification *(Check one or more of the following options, as applicable)*:

[X] For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

[ ] For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

[ ] For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

[ ] The designated representative at an Acid Rain source.

Additional Responsible Official

1. Name and Position Title of Responsible Official:
   J. Michael Kennedy, Manager, Air Programs, DR

2. Responsible Official Mailing Address:
   Organization/Firm: Florida Power Corporation
   Street Address: 100 Central Avenue MAC: BB1A
   City: St. Petersburg State: FL Zip Code: 33701

3. Responsible Official Telephone Numbers:
   Telephone: (727) 826-9334 Fax: (727) 826-4216

4. Responsible Official Qualification *(Check one or more of the following options, as applicable)*:

[ ] For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

[ ] For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

[ ] For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

[X] The designated representative at an Acid Rain source.

Florida Power
A Progress Energy Company

RECEIVED
JUL 15 2002
DIVISION OF AIR
RESOURCES MANAGEMENT

July 12, 2002

Mr. Howard Rhodes, Director
Florida Department of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Rd. MS 5500
Tallahassee, FL 32399-2400

Subject: Responsible Official Notification Form

Dear Mr. Rhodes:

On July 10, 2002 Mr. Habermeyer, Jr. President & Chief Executive Officer of Florida Power Corp. sent you a letter delegating me as a Title V Primary Responsible Official. As indicated in Mr. Habermeyer's letter I am attaching the Responsible Official Notification Forms.

If you have any questions, please contact me at (863) 679-3020.

Very truly yours,

Kris G. Edmondson
Plant Manager Central CT Sites

Attachment

c: Mr. Ron Blackburn (FL-DEP)
Mr. William Dudley
Mr. J. Michael Kennedy
Mr. Leonard Kozlov (FL-DEP)
Mr. David Sorrick
Mr. Scott Sheplak, (FL-DEP)

Department of
Environmental Protection

Division of Air Resource Management

RESPONSIBLE OFFICIAL NOTIFICATION FORM

Note: A responsible official is not necessarily a designated representative under the Acid Rain Program. To become a designated representative, submit a certificate of representation to the U.S. Environmental Protection Agency (EPA) in accordance with 40 CFR Part 72.24.

Identification of Facility

1. Facility Owner/Company Name: Florida Power Corporation	
2. Site Name: **Intercession City Plant**	3. County: Osceola County
4. Title V Air Operation Permit/Project No. *(leave blank for initial Title V applications)*: 970014-004-AV	

Notification Type *(Check one or more)*

__ **INITIAL:**	Notification of responsible officials for an initial Title V application.
__ **RENEWAL:**	Notification of responsible officials for a renewal Title V application.
X **CHANGE:**	Notification of change in responsible official(s).
	Effective date of change in responsible official(s) July 8, 2002

Primary Responsible Official

1. Name and Position Title of Responsible Official: Kris Edmondson – Plant Manger Central CT Sites

2. Responsible Official Mailing Address:
   Organization/Firm: Florida Power Corporation
   Street Address: 100 Central Avenue MAC: IC44
   City: St. Petersburg State: FL Zip Code: 33701

3. Responsible Official Telephone Numbers:
   Telephone: (863)679-3020 Fax: (863)679-3055

4. Responsible Official Qualification *(Check one or more of the following options, as applicable)*:

[X] For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

[ ] For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

[ ] For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

[ ] The designated representative at an Acid Rain source.

5. Responsible Official Statement:

I, the undersigned, am a responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this notification. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this notification are true, accurate and complete. Further, I certify that I have authority over the decisions of all other responsible officials, if any, for purposes of Title V permitting.

Kris F. Eberle — Signature

July 12, 2002 — Date

Additional Responsible Official

1. Name and Position Title of Responsible Official:
William Dudley, Production Manager – CT

2. Responsible Official Mailing Address:
Organization/Firm: Florida Power Corporation
Street Address: 100 Central Avenue MAC: IC44
City: St. Petersburg State: FL Zip Code: 33701

3. Responsible Official Telephone Numbers:
Telephone: (863) 679-3030 Fax: (863) 679-3055

4. Responsible Official Qualification *(Check one or more of the following options, as applicable)*:

[X] For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

[ ] For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

[ ] For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

[ ] The designated representative at an Acid Rain source.

Additional Responsible Official

1. Name and Position Title of Responsible Official:
David Sorrick, General Manager CT Operations, Florida

2. Responsible Official Mailing Address:
Organization/Firm: Florida Power Corporation
Street Address: 100 Central Avenue MAC: BB1C
City: St. Petersburg State: FL Zip Code: 33701

3. Responsible Official Telephone Numbers:
Telephone: (727)826-4026 Fax: (727)826-4222

4. Responsible Official Qualification *(Check one or more of the following options, as applicable)*:

[X] For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

[ ] For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

[ ] For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

[ ] The designated representative at an Acid Rain source.

Additional Responsible Official

1. Name and Position Title of Responsible Official:
   J. Michael Kennedy, Manager, Air Programs, DR

2. Responsible Official Mailing Address:
   Organization/Firm: Florida Power Corporation
   Street Address: 100 Central Avenue MAC: BB1A
   City: St. Petersburg State: FL Zip Code: 33701

3. Responsible Official Telephone Numbers:
   Telephone: (727) 826-9334 Fax: (727) 826-4216

4. Responsible Official Qualification *(Check one or more of the following options, as applicable)*:

[ ] For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

[ ] For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

[ ] For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

[X] The designated representative at an Acid Rain source.

Florida Power
A Progress Energy Company

RECEIVED
JUL 16 2002
BUREAU OF AIR REGULATION

July 11, 2002

Mr. Scott Sheplak, P.E.
Florida Department of Environmental Protection
Bureau of Air Regulation, Title V Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

0970014-005-AV

Re: WITHDRAW OF TITLE V PERMIT REVISION REQUEST
INTERCESSION CITY FACILITY NO. 0970014 - FLORIDA POWER

Dear Mr. Sheplak:

In response to your letter dated June 6, 2002 regarding the status of additional information previously requested by the Department related to the 2001 Title V revision request, please note that Florida Power wishes to formally withdraw the requested revision. In lieu of pursuing the requested changes through the original modification request, Florida Power is currently seeking the changes in conjunction with the recently filed Title V permit renewal application for the facility.

If you have any questions regarding any of the information, please contact me at (727) 826-4363.

Sincerely,

Jamie Hunter
Lead Environmental Specialist

c: Tom Cascio, FDEP - Tallahassee

jjh/JJH039

P.O. Box 14042
St. Petersburg, FL 33733

Florida Power
A Progress Energy Company

RECEIVED
JUL 01 2002
BUREAU OF AIR REGULATION

June 27, 2002

Mr. Scott Sheplak, P.E.
Florida Department of Environmental Protection
Bureau of Air Regulation, Title V Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: SUBMITTAL OF TITLE V PERMIT RENEWAL APPLICATION
INTERCESSION CITY FACILITY NO. 0970014 - FLORIDA POWER

Dear Mr. Sheplak:

Enclosed for your review is an original and three copies of the Title V application for Florida Power's Intercession City Facility. An additional copy has been sent to the FDEP's Central District Office.

The following is a requested permit change for the reporting of excess emissions:

Permit No. 0970014-004-AV Conditions III.B.13 currently reads:

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)]**

Florida Power is requesting that Condition III.B.13 be amended to read:

B.13.
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. Subject to EPA approval, 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. For the purposes of reporting excess emissions pursuant to 40 CFR 60.334(c)(1), 24-hour block average concentrations of the NO_x emission limits expressed in ppmvd @ 15% O_2 dry basis shall be used.

If you have any questions regarding any of the information contained in this application, please do not hesitate to contact Cal Ogburn at (919) 362-3585 or Jamie Hunter at (727) 826-4363.

Sincerely,

Martin J. Drango, P.E.
Plant Manager/Responsible Official

Enclosures

c: Leonard Kozlov, DEP Central District (w/enc)
Ken Kosky, Golder Associates Inc.

jjh/JJH037

enclosures

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

June 6, 2002

Mr. Jamie Hunter
Lead Environmental Specialist
Florida Power Corporation
P.O. Box 14042
St. Petersburg, FL 33733

Dear Mr. Hunter:

In our letter to Martin Drango dated July 19, 2001, we indicated certain incompleteness items needed to process your Company's application for a Title V Permit Revision for the **Intercession City Plant** (Facility ID 0970014). However, to date, we have not received a written response. Please note that Rule 62-4.055(1), F.A.C., requires a response to requests for information within 90 days.

If you wish to further pursue this permitting action, please provide the needed information within 30 days of receipt of this letter. Alternately, you could formally withdraw the application, thus avoiding the need for us to *deny the request for the revision to the permit.*

Please call Tom Cascio at 850-921-9526 if you need to discuss this matter further.

Sincerely,

Scott M. Sheplak, P.E.
Administrator
Title V Section

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Jamie Hunter
Lead Environmental Specialist
Florida Power Corporation
P.O. Box 14042
St. Petersburg, FL 33733

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* | B. Date of Delivery

C. Signature
X ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

ST. PETERSBURG, FL 33733
JUN 10 2002
CALLER SERVICE

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

7001 0320 0001 3692 8499

PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here

7001 0320 0001 3692 8499

Sent To
Jamie Hunter
Street, Apt. No.; or PO Box No.
PO Box 14042
City, State, ZIP+4
St. Petersburg, FL 33733

PS Form 3800, January 2001 See Reverse for Instructions