



Jeb Bush  
Governor

# Department of Environmental Protection

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

Colleen M. Castille  
Secretary

September 2, 2004

Mr. Roger B. Zirkle  
Plant Manager, Tiger Bay Cogeneration Facility  
Progress Energy  
3219 State Road 630 West  
Ft. Meade, Florida 33841

Re: Revised Air Construction Permit, DRAFT Permit No.: 1050223-013-AC / PSD-FL-190A  
Title V Air Operation Permit Renewal, DRAFT Permit No.: 1050223-012-AV  
Tiger Bay Cogeneration Facility

Dear Mr. Zirkle:

One copy of the combined Public Notice, the Draft Air Construction Permit, and the DRAFT Title V Air Operation Permit Renewal for the Tiger Bay Cogeneration Facility located at 3219 State Road 630 West, Ft. Meade, Polk County, is enclosed. The permitting authority's "INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT" and the "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT" are also included. *It should be noted that this DRAFT Title V Air Operation permit is being issued as a replacement to the DRAFT Title V Air Operation Permit Renewal that was issued on August 11. The permit is being replaced in order to reflect changes made as a result of Air Construction Permit 1050223-013-AC / PSD-FL-190A, and to provide a simultaneous Public Notice for the two permits. The attachments that were issued as part of the DRAFT Title V Air Operation Permit on August 11 have not changed and are not being reissued.*

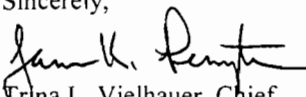
An electronic version of the DRAFT Permits have been posted on the Division of Air Resource Management's World Wide Web site for the United States Environmental Protection Agency (USEPA) Region 4 office's review. The web site address is:

"<http://www.dep.state.fl.us/air/eproducts/ards/default.asp>".

The "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT" must be published as soon as possible upon receipt of this letter. Proof of publication, i.e., newspaper affidavit, must be provided to the permitting authority's office within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit revision.

Please submit any written comments you wish to have considered concerning the permitting authority's proposed action to James K. Pennington, P.E., at the above letterhead address. If you have any other questions, please contact Jonathan Holtom, P.E., at 850/921-9531.

Sincerely,

  
for Trina L. Vielhauer, Chief  
Bureau of Air Regulation

TLV/jkp/h  
Enclosures

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Sent To  
 Mr. Roger B. Zirkle, Plant Manager  
 St. Johns Bay Cogeneration Facility  
 Progress Energy / 3219 State Rd. 630 West  
City, State, ZIP+4  
 Ft. Meade, Florida 33841

PS Form 3800, May 2000

See Reverse for Instructions

No Return Card



# Department of Environmental Protection

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Governor

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2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Colleen M. Castille  
Secretary

## P.E. Certification Statement

**Permittee:**

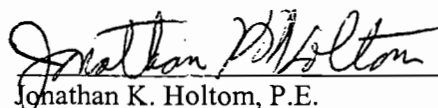
Florida Power Corporation  
Tiger Bay Cogeneration Facility

**DRAFT Permit No.:** 1050223-013-AC

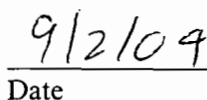
**Facility ID No.:** 1050223

**Project:** Air Construction Permit Modification to establish an allowable emission limit for emissions of nitrogen oxides during periods of start up and shut down.

**I HEREBY CERTIFY** that the engineering features described in the above referenced application and related additional information submittals, if any, and subject to the proposed permit conditions, provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).

  
Jonathan K. Holtom, P.E.

Registration Number: 0052664

  
Date

Permitting Authority:

Florida Department of Environmental Protection  
Division of Air Resources Management  
Bureau of Air Regulation  
Mail Station #5505  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Telephone: 850/488-0114

Fax: 850/922-6979

*"More Protection, Less Process"*

*Printed on recycled paper.*

In the Matter of an  
Application for Permits by:

Progress Energy  
P.O. Box 14042  
St. Petersburg, Florida 33733

Draft Air Construction Permit No.: 1050223-013-AC / PSD-FL\_190A  
DRAFT Title V Air Operation Permit No.: 1050223-012-AV  
Tiger Bay Cogeneration Facility  
Polk County

**INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT**

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue an Air Construction permit and a Title V Air Operation Permit Renewal (copies of the Draft Air Construction Permit and DRAFT Title V Air Operation Permit attached) for the Title V source detailed in the application specified above, for the reasons stated below.

The applicant, Progress Energy, applied on May 18, 2004, to the permitting authority for a Title V Air Operation Permit Renewal, and on July 9, 2004 for an Air Construction permit revision, for the Tiger Bay Cogeneration Facility located at 3219 State Road 630 West, Ft. Meade, Polk County.

The Air Construction Permit Revision is being issued at the applicant's request to establish an allowable emissions limitation for emissions of nitrogen oxides (NO<sub>x</sub>) during periods of start up and shut down of the combustion turbine, and to recognize excess emissions resulting from combustor tuning. The current permit allows emissions in excess of the permitted limit for up to 2 hours in any 24 hour period for occurrences of a unit start up, shut down or malfunction. However, due to the operational nature of the combined cycle combustion turbine, start up of the unit must be performed over as much as a five hour period to avoid heat stress damage to the steam turbine. As a result, emissions in excess of the emissions limit can sometimes occur for more than two hours during the start up and shut down periods.

The Title V Air Operation Permit Renewal is being issued to allow continued commercial operation of the facility, as authorized by the initial Title V Air Operation Permit 1050223-002-AV, and as revised by Air Construction Permit 1050223-013-AC / PSD-FL-190A.

The permitting authority has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-212 and 62-213. This source is not exempt from construction and Title V permitting procedures. The permitting authority has determined that an Air Construction Permit and a Title V Air Operation Permit are required to construct and to commence or continue operations at the described facility.

The permitting authority intends to issue the Air Construction Permit and the Title V Air Operation Permit based on the belief that reasonable assurances have been provided to indicate that the construction activity and operation of the source will not adversely impact air quality, and the source will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C.

Pursuant to Sections 403.815 and 403.087, F.S., and Rules 62-110.106 and 62-210.350(3), F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT." The notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit revision. If you are uncertain that a newspaper meets these requirements, please contact the permitting authority at the address or telephone number listed below. The applicant shall provide proof of publication 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), within 7 (seven) days of

**Note to Permittee:** This page is part of the Notice of Intent, **NOT** the Public Notice.  
**DO NOT PROVIDE THE NOTICE OF INTENT TO THE NEWSPAPER FOR PUBLICATION!**

publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit revision pursuant to Rule 62-110.106, F.A.C.

The permitting authority will issue the Air Construction Permit and the PROPOSED Title V Air Operation Permit and subsequent FINAL Title V Air Operation Permit, in accordance with the conditions of the attached Draft Air Construction Permit and the DRAFT Title V Air Operation 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 Air Construction Permit issuance action for a period of 14 (fourteen) days from the date of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT REVISION." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this Draft Air Construction Permit, the permitting authority shall issue a Revised Draft Air Construction Permit and require, if applicable, another Public Notice.

The permitting authority will accept written comments concerning the proposed Title V Air Operation Permit issuance action for a period of 30 (thirty) days from the date of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR OPERATION PERMIT." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Title V Air Operation Permit, the permitting authority shall issue a Revised DRAFT Title V Air Operation 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, 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: 850/488-9730; Fax: 850/487-4938). Petitions filed by the permit revision applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. 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 this 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 appropriate 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, 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; the 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 the petitioner's substantial interests will be affected by the agency determination;

(c) A statement of how and when each 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 indicate;

(e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the 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 will not be available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply to the Department of Environmental Protection for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542, F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information:

- (a) The name, address, and telephone number of the petitioner;
- (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any;
- (c) Each rule or portion of a rule from which a variance or waiver is requested;
- (d) The citation to the statute underlying (implemented by) the rule identified in (c) above;
- (e) The type of action requested;
- (f) The specific facts that would justify a variance or waiver for the petitioner;
- (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and,
- (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

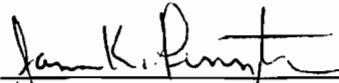
The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2), F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the United States Environmental Protection Agency and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Finally, 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 at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any permit revision. Any petition shall be based only on objections to the permit revision that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(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.

Executed in Tallahassee, Florida.

**STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION**

  
Trina L. Vielhauer, Chief  
Bureau of Air Regulation

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL (including the PUBLIC NOTICE and the DRAFT Permit) and all copies were sent by certified mail before the close of business on 9/3/04 to the person(s) listed:

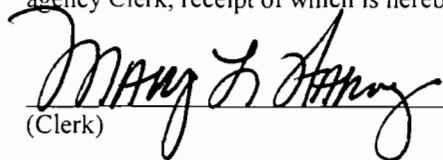
Mr. Roger B. Zirkle

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL (including the DRAFT Permit package) were sent by INTERNET E-mail on the same date to the person(s) listed:

Mr. Scott Osbourn, P.E. (sosbourn@golder.com)  
Mr. Jason Waters, DEP-SWD  
Mr. Hamilton Oven, P.E., DEP-SCO  
U.S. EPA, Region 4

Clerk Stamp

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

  
(Clerk) 9/3/04 (Date)

**PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT AND A TITLE V AIR  
OPERATION PERMIT**

**DEPARTMENT OF ENVIRONMENTAL PROTECTION**

Draft Air Construction Permit No.: 1050223-013-AC / PSD-FL-190A  
DRAFT Title V Air Operation Permit No.: 1050223-012-AV

Progress Energy - Tiger Bay Cogeneration Facility  
Polk County

**Applicant:** The applicant for this project is Progress Energy, 3219 State Road 630 West, Ft. Meade, Florida 33841. The applicant's responsible official is Mr. Roger B. Zirkle, Plant Manager.

**Facility Location:** The applicant operates a Cogeneration Facility, which is located at 3219 State Road 630 West in Ft. Meade, Polk County, Florida.

**Project:** The applicant submitted an application for a Title V Air Operation Permit renewal. This facility consists of a single combustion turbine (CT) that exhausts through a heat recovery steam generator (HRSG). The facility is permitted to combust natural gas as the primary fuel and distillate fuel oil as back-up fuel. However, the fuel oil capability has yet to be installed. The total combined capacity of the facility is 269.5 megawatts. A nominal 184 megawatts are provided by the combustion turbine. In addition, a nominal 85.5 megawatts are provided by a steam generator. Emissions unit -001 is regulated under Acid Rain Phase II. This permit will be a renewal Title V air operation permit for this facility.

The applicant also submitted an application for an Air Construction Permit in order to establish an allowable emissions limitation for emissions of nitrogen oxides (NO<sub>x</sub>) during periods of start up and shut down of the combustion turbine, and to recognize excess emissions resulting from combustor tuning. The current permit allows emissions in excess of the permitted limit for up to 2 hours in any 24 hour period for occurrences of a unit start up, shut down or malfunction. However, due to the operational nature of the combined cycle combustion turbine, start up of the unit must be performed over as much as a five hour period to avoid heat stress damage to the steam turbine. As a result, emissions in excess of the emissions limit can sometimes occur for more than two hours during the start up and shut down periods. This permit will be a revision Air Construction permit No. AC53-214903 / PSD-FL-190 for this facility.

**Permitting Authority:** Applications for Air Construction Permits and for Title V Air Operation Permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-213 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and an air permit is required to operate the facility. The Department of Environmental Protection is the Permitting Authority responsible for making a permit determination regarding this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301. The Permitting Authority's mailing address is: Department of Environmental Protection, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/488-0114.

**Project File:** A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at the address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Statement of Basis, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address and phone number listed above or at the following email address: jonathan.holtom@dep.state.fl.us. A copy of the complete project file is also available at the Department of Environmental Protection's Southwest District Office at 3804 Coconut Palm Drive, Tampa, Florida 33619-8218 (Telephone: 813/744-6100).



**Notice of Intent to Issue Air Permit:** The Permitting Authority gives notice of its intent to issue an Air Construction Permit and a Title V Air Operation Permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the facility will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a Final Air Construction Permit, a Proposed Title V Air Operation Permit and subsequent Final Title V Air Operation Permit in accordance with the conditions of the Draft Permits unless a response received in accordance with the following procedures results in a different decision or a significant change of terms or conditions.

**Comments:** The Permitting Authority will accept written comments concerning the Draft Air Construction Permit for a period of fourteen (14) days from the date of publication of this Public Notice. The Permitting Authority will accept written comments concerning the Draft Title V Air Operation Permit for a period of thirty (30) days from the date of publication of this Public Notice. Written comments must be provided to the Permitting Authority at the above address. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on this permitting action. If the Permitting Authority determines there is sufficient interest for a public meeting, it will publish notice of the time, date, and location on the Department's official web site for notices (<http://tlhora6.dep.state.fl.us/onw/>) and in a newspaper of general circulation in the area affected by the permitting action. For additional information, contact the Permitting Authority at the above address or phone number. If written comments or comments received at a public meeting result in a significant change to the Draft Permits, the Permitting Authority shall revise the Draft Permits and require, if applicable; another Public Notice. All comments filed will be made available for public inspection.

**Petitions:** 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, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within fourteen (14) days of publication of this Public Notice or receipt of a written notice, 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 (14) 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 appropriate 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, 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; the 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 the 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, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (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 the 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 Public 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:** Mediation is not available for this proceeding.

**Objections:** In addition to the above right to petition, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within sixty (60) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to the issuance of any Title V Air Operation Permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the thirty (30) day public comment period provided in the Public Notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(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. For more information regarding objections, visit the EPA Region 4 web site at: [www.epa.gov/region4/air/permits](http://www.epa.gov/region4/air/permits).



# Department of Environmental Protection

# DRAFT

Jeb Bush  
Governor

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

Colleen M. Castille  
Secretary

## PERMITTEE:

Progress Energy  
Tiger Bay Cogeneration Facility  
3219 State Road 630 West  
Ft. Meade, Florida.

<b>ARMS Permit No.</b>	1050223-013-AC / PSD-FL-190A
<b>Facility ID No.</b>	1050223
<b>SIC No.</b>	4911
<b>Expires:</b>	March 15, 2005

*Authorized Representative:*  
Roger B. Zirkle, Plant Manager

## PROJECT AND LOCATION

This permitting action is being issued at the applicant's request to establish an allowable emissions limitation for emissions of nitrogen oxides (NO<sub>x</sub>) during periods of start up and shut down of the combustion turbine, and to recognize excess emissions resulting from combustor tuning. The current permit allows emissions in excess of the permitted limit for up to 2 hours in any 24 hour period for occurrences of a unit start up, shut down or malfunction. However, due to the operational nature of the combined cycle combustion turbine, start up of the unit must be performed over as much as a five hour period to avoid heat stress damage to the steam turbine. As a result, emissions in excess of the emissions limit can sometimes occur for more than two hours during the start up and shut down periods.

The facility is located at 3219 State Road 630 West, Ft. Meade, Polk County.

## STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to make changes in accordance with the conditions of this permit.

## APPENDICES

The following attached document is incorporated as part of this permit:

AC53-214903 / PSD-FL-190      Initial Air Construction Permit

---

Michael G. Cooke, Director  
Division of Air Resource Management

"More Protection, Less Process"

Printed on recycled paper.

**DRAFT**

**FACILITY DESCRIPTION**

The subject facility consists of a single combustion turbine (CT) that exhausts through a heat recovery steam generator (HRSG). The facility is permitted to combust natural gas as the primary fuel and distillate fuel oil as back-up fuel. However, the fuel oil capability has yet to be installed. The total combined capacity of the facility is 269.5 megawatts. A nominal 184 megawatts are provided by the combustion turbine. In addition, a nominal 85.5 megawatts are provided by a steam generator. Emissions unit -001 is regulated under Acid Rain Phase II.

**REGULATORY CLASSIFICATION**

Title V Major Source: This facility is a Title V major source of air pollution.

PSD Major Source: Each pollutant with potential emissions greater than the Significant Emissions Rates specified in Table 62-212.400-2, F.A.C. requires a PSD review and Best Available Control Technology (BACT) determination. This project will not result in a significant emissions increase of any pollutant, nor will it subject the emissions unit to any new BACT standards, provided that the Emissions Unit is operated as specified in this permit.

**RELEVANT DOCUMENTS**

The documents listed form the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

- AC53-214903 / PSD-FL-190 issued 5-17-93
- Electronic construction permit application received 7-9-04

**DRAFT**

1. All of the terms and conditions of the attached air construction permit, No. 62-3-1993-7 PSD-FL-190, dated May 17, 1993, are incorporated into this air construction permit and remain the same, except for the changes that follow in Specific Condition 2, below.

2. In order to establish an allowable emissions limitation for emissions of nitrogen oxides (NO<sub>x</sub>) during periods of start up and shut down of the combustion turbine, Specific Condition 1. is changed:

**From:**

1. The maximum allowable emissions from this source shall not exceed the emission rates listed in Table 1.

**To:**

1. a. The maximum allowable emissions from this source shall not exceed the emission rates listed in Table 1.
- b. The maximum allowable emissions of nitrogen oxides resulting from a start up or shut down of the CT shall not exceed an average of 120 lbs/hour, based on a 24 hour period commencing with the beginning of a start up or a shut down of the unit. The 24-hour average shall be based on all available data excluding calibration data and periods of emissions due to malfunction during the start up period.

[BACT determination dated May 17, 1993; Rule 62-210.700(5), F.A.C.; and, applicant request]

3. In order to recognize excess emissions resulting from combustor tuning, Specific Condition 22. is changed:

**From:**

22. This source shall be in compliance with all applicable provisions of F.A.C. Rules 17-210.650: Circumvention; 17-210: Excess Emissions; 17-296.800: Standards of Performance for New Stationary Sources (NSPS); 17-297: Stationary Sources-Emissions Monitoring; and, 17-4.130: Plant Operation-Problems.

**To:**

22. a. This source shall be in compliance with all applicable provisions of F.A.C. Rules 62-210.650: Circumvention; 62-210.700: Excess Emissions; 62-296.800: Standards of Performance for New Stationary Sources (NSPS); 62-297: Stationary Sources-Emissions Monitoring; and, 62-4.130: Plant Operation-Problems.
- b. Excess emissions resulting from a combustor tuning session shall be permitted provided the tuning session is performed in accordance with the manufacturer's specifications and in no case shall exceed 72 hours in any calendar year. A "tuning session" would occur after a combustor change-out, a repair to a combustor, or as required to maintain compliance. Prior to performing any tuning session, the permittee shall provide the Compliance Authority with an advance notice that details the activity and proposed tuning schedule. The notice may be made by telephone, facsimile transmittal, or electronic mail.

[Rule 62-210.700(1) & (5), F.A.C.; and, applicant request]



## Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

**PERMITTEE:**

Central Florida Power, L.P.  
2500 City West Blvd., Ste. 150  
Houston, Texas 77042

Permit Number: AC53-214903  
PSD-FL-190

Expiration Date: January 1, 1996  
County: Polk

Latitude/Longitude: 27°44'46.7"N  
81°51'0.3"W

Project: A 258 MW Cogeneration  
Facility

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-210, 212, 275, 296, 297 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Central Florida Power, Limited Partnership, proposes to operate a 258 MW cogeneration facility consisting of one combustion turbine generator, one steam turbine generator, one duct burner-fired heat recovery steam generator and ancillary equipment. This facility is located near Ft. Meade, Polk County, Florida. The UTM coordinates are Zone 17, 416.22 km East and 3069.22 km North.

The sources shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Central Florida Power, Limited Partnership's (CFPLP) application received on June 15, 1992.
2. Department's letters dated July 14 and October 9, 1992.
3. CFPLP's letters received on August 26, October 9, and October 23, 1992.

**PERMITTEE:**  
Central Florida Power, L.P.

**Permit Number:** AC53-214903  
**PSD-FL-190**  
**Expiration Date:** January 1, 1996

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

**PERMITTEE:**  
Central Florida Power, L.P.

**Permit Number:** AC53-214903  
**PSD-FL-190**  
**Expiration Date:** January 1, 1996

**GENERAL CONDITIONS:**

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.



**PERMITTEE:**  
Central Florida Power, L.P.

Permit Number: AC53-214903  
PSD-FL-190  
Expiration Date: January 1, 1996

**GENERAL CONDITIONS:**

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- (x) Determination of Best Available Control Technology (BACT)
- (x) Determination of Prevention of Significant Deterioration (PSD)
- (x) Compliance with New Source Performance Standards (NSPS)

14. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
  - the date, exact place, and time of sampling or measurements;

PERMITTEE:  
Central Florida Power, L.P.

Permit Number: AC53-214903  
PSD-FL-190  
Expiration Date: January 1, 1996

**GENERAL CONDITIONS:**

- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

**SPECIFIC CONDITIONS:**

Emission Limits

1. The maximum allowable emissions from this source shall not exceed the emission rates listed in Table 1.
2. Visible emissions for full load operation shall not exceed 10% opacity when firing natural gas and 20% opacity when firing distillate fuel oil.

Operating Rates

3. This source is allowed to operate continuously (8,760 hours per year).
4. This source is allowed to use natural gas as the primary fuel for 8,760 hours per year and low sulfur distillate fuel oil (0.05% S) as the secondary fuel up to 3,742,327 gallons per calendar year.
5. The permitted materials and utilization rates for the combined cycle gas turbine system shall be as stated in the application. The operating parameters include, but are not limited to:

184 MW Combustion Turbine

- a) The maximum heat input of 1,849.9 MMBtu/hr (LHV) at 27°F and at base load for distillate fuel oil.
- b) The maximum heat input of 1,614.8 MMBtu/hr (LHV) at 27°F and at base load for natural gas.

PERMITTEE:  
Central Florida Power, L.P.

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**SPECIFIC CONDITIONS:**

Duct Burner

- c) The maximum heat input of 100 MMBtu/hr (HHV) of natural gas.
6. Any change in the method of operation, equipment or operating hours pursuant to Rule 17-212.200, F.A.C., Definitions-Modifications, shall be submitted to DER's Bureau of Air Regulation and Southwest District offices.
7. Any other operating parameters established during compliance testing and/or inspection that will ensure the proper operation of this facility shall be included in the operating permit.

Compliance Determination

8. Compliance with the NO<sub>x</sub>, SO<sub>2</sub>, CO, PM, PM<sub>10</sub>, and VOC standards shall be determined (while operating at 95-100% of the permitted maximum heat rate input corresponding to the particular ambient conditions) within 180 days of initial operation of the maximum capability of the unit and annually thereafter, by the following reference methods as described in 40 CFR 60, Appendix A (July, 1992 version) and adopted by reference in F.A.C. Rule 17-297.

- Method 1 Sample and Velocity Traverses for Stationary Sources
- Method 2 Determination of Stack Gas Velocity and Volumetric Flow Rate
- Method 3 Gas Analysis
- Method 5 Determination of Particulate Emissions from  
or  
Method 17 Determination of Particulate Emissions from Stationary Sources
- Method 18 Measurement of Gaseous Organic Compound Emissions by Gas Chromatography
- Method 9 Visual Determination of the Opacity of Emissions from Stationary Sources
- Method 8 Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions from Stationary Sources
- Method 10 Determination of Carbon Monoxide Emission from Stationary Sources
- Method 20 Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
- Method 25A Determination of Total Gaseous Organic Concentrations Using a Flame Ionization Analyzer

PERMITTEE:  
Central Florida Power, L.P.

Permit Number: AC53-214903  
PSD-FL-190  
Expiration Date: January 1, 1996

**SPECIFIC CONDITIONS:**

- Method 201A Determination of PM<sub>10</sub> Emissions from Stationary and Sources
- Method 202 Determination of Condensable Particulate Emissions from Stationary Sources

Other DER approved methods may be used for compliance testing after prior Departmental approval.

9. Method 5 or Method 17 or Method 201A and Method 202 must be performed to determine the initial compliance status of particulate matter emissions of the unit. Thereafter, the opacity emissions test, Method 9, may be used unless the applicable opacity is exceeded. Also, the ambient particulate matter entering the gas turbine can be subtracted from the total particulate matter emissions if that quantity can be measured at the inlet of the gas turbine.

10. Compliance with the SO<sub>2</sub> and sulfuric acid mist emission limit can also be determined by calculations based on fuel analysis using ASTM D4294 for the sulfur content of liquid fuels and ASTM D3246-81 for sulfur content of gaseous fuel.

11. Trace elements of Beryllium (Be) shall be tested during initial compliance test using EMTIC Interim Test Method. As an alternative, Method 104 may be used; or Be may be determined from fuel sample analysis using either Method 7090 or 7091, and sample extraction using Method 3040 as described in the EPA solid waste regulations SW 846.

12. Mercury (Hg) shall be tested during initial compliance test using EPA Method 101 (40 CFR 61, Appendix B) or fuel sampling analysis using methods acceptable to the Department.

13. During performance tests, to determine compliance with the NO<sub>x</sub> standard, measured NO<sub>x</sub> emissions at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor:

$$\text{NO}_x = (\text{NO}_x \text{ obs}) \left( \frac{P_{\text{ref}}}{P_{\text{obs}}} \right)^{0.5} e^{19} (\text{Hobs} - 0.00633) \left( \frac{288^\circ\text{K}}{T_{\text{AMB}}} \right)^{1.53}$$

where:

PERMITTEE:  
Central Florida Power, L.P.

Permit Number: AC53-214903  
PSD-FL-190  
Expiration Date: January 1, 1996

**SPECIFIC CONDITIONS:**

NO<sub>x</sub> = Emissions of NO<sub>x</sub> at 15 percent oxygen and ISO standard ambient conditions.

NO<sub>x</sub> obs = Measured NO<sub>x</sub> emission at 15 percent oxygen, ppmv.

P<sub>ref</sub> = Reference combustor inlet absolute pressure at 101.3 kilopascals (1 atmosphere) ambient pressure.

P<sub>obs</sub> = Measured combustor inlet absolute pressure at test ambient pressure.

H<sub>obs</sub> = Specific humidity of ambient air at test.

e = Transcendental constant (2.718).

T<sub>AMB</sub> = Temperature of ambient air at test.

14. Test results will be the average of 3 valid runs. The Southwest District office will be notified at least 30 days in writing in advance of the compliance test(s). The sources, combustion turbine and duct burner, shall operate between 95% and 100% of maximum capacity for the ambient conditions experienced during compliance test(s). The turbine manufacturer's capacity vs temperature (ambient) curve shall be included with the compliance test results. Compliance test results shall be submitted to the Southwest District office no later than 45 days after completion.

15. The permittee shall comply with the following by 12/31/97:

- a) For this turbine, if the 15 (gas)/42 (oil) ppmvd, corrected to 15% O<sub>2</sub> emission rates cannot be met by 12/31/97, SCR or other control technology will be installed. Hence, the permittee shall install a duct module suitable for future installation of SCR equipment.

16. The permittee shall install, calibrate, maintain, and operate a continuous emission monitor in the stack to measure and record the nitrogen oxides emissions from this source. The continuous emission monitor must comply with 40 CFR 60, Appendix B, Performance Specification 2 (July 1, 1992).

17. A continuous monitoring system shall be installed to monitor and record the fuel consumption on the CT and duct burner. While water/steam injection is being utilized for NO<sub>x</sub> control, the water/steam to fuel ratio at which compliance is achieved shall be incorporated into the permit and shall be continuously monitored. The system shall meet the requirements of 40 CFR Part 60, Subpart GG.

PERMITTEE:  
Central Florida Power, L.P.

Permit Number: AC53-214903  
PSD-FL-190  
Expiration Date: January 1, 1996

**SPECIFIC CONDITIONS:**

18. Sulfur and nitrogen content and lower heating value of the fuel being fired in the combustion turbines shall be determined as specified in 40 CFR 60.334(b). Any request for a future custom monitoring schedule shall be made in writing and directed to the Southwest District office. Any custom schedule approved by DER pursuant to 40 CFR 60.334(b) will be recognized as enforceable provisions of the permit, provided that the holder of this permit demonstrates that the provisions of the schedule will be adequate to assure continuous compliance. The records of distillate fuel oil usage shall be kept by the company for a two-year period for regulatory agency inspection purposes. For sulfur dioxide, periods of excess emissions shall be reported if the fuel being fired in the gas turbine exceeds 0.05 percent sulfur by weight.

Rule Requirements

19. This source shall comply with all applicable provisions of Chapter 403, Florida Statutes, Chapters 17-210, 212, 275, 296, 297 and 17-4, Florida Administrative Code and 40 CFR 60 (July, 1992 version).

20. The sources shall comply with all requirements of 40 CFR 60, Subpart GG and Subpart Dc, and F.A.C. Rule 17-296.800,(2)(a), Standards of Performance for Stationary Gas Turbines and Standards of Performance for Industrial, Commercial, and Institutional Steam Generating Units.

21. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements and regulations (F.A.C. Rule 17-210.300(1)).

22. This source shall be in compliance with all applicable provisions of F.A.C. Rules 17-210.650: Circumvention; 17-210.700: Excess Emissions; 17-296.800: Standards of Performance for New Stationary Sources (NSPS); 17-297: Stationary Sources-Emissions Monitoring; and, 17-4.130: Plant Operation-Problems.

23. If construction does not commence within 18 months of issuance of this permit, then the permittee shall obtain from the Department a review and, if necessary, a modification of the control technology and allowable emissions for the unit(s) on which construction has not commenced (40 CFR 52.21(r)(2)).

24. Quarterly excess emission reports, in accordance with the July 1, 1992 version of 40 CFR 60.7 and 60.334 shall be submitted to the Department's Southwest District office.

PERMITTEE:  
Central Florida Power, L.P.

Permit Number: AC53-214903  
PSD-FL-190  
Expiration Date: January 1, 1996

**SPECIFIC CONDITIONS:**

25. Fugitive dust emissions, during the construction period, shall be minimized by covering or watering dust generation areas.

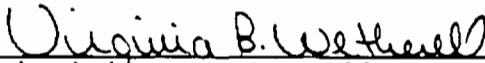
26. Pursuant to F.A.C. Rule 17-210.300(2), Air Operating Permits, the permittee is required to submit annual reports on the actual operating rates and emissions from this facility. These reports shall include, but are not limited to the following: sulfur content and the lower heating value of the fuel being fired, fuel usage, hours of operation, air emissions limits, etc. Annual reports shall be sent to the Department's Southwest District office by March 1 of each calendar year.

27. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

28. An application for an operation permit must be submitted to the Southwest District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-4.220).

Issued this 17th day  
of May, 1993

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
Virginia B. Wetherell  
Secretary

**CENTRAL FLORIDA POWER, L.P. - AC53-214903 (PSD-FL-190)**  
**258 MW COMBINED CYCLE GAS TURBINE**

Table 1 - Allowable Emission Rates

Pollutant	Fuel <sup>A</sup>	Allowable Emission <sup>C</sup>		Basis
		Standard/Limitation		
NO <sub>x</sub> (CT)	Gas	15 ppmvd @ 15% O <sub>2</sub> (97.2 lbs/hr; 425.7 TPY) <sup>B</sup>		BACT
	Gas	25 ppmvd @ 15% O <sub>2</sub> (161.9 lbs/hr; 709.1 TPY)		BACT
	Oil	42 ppmvd @ 15% O <sub>2</sub> (326 lbs/hr; 48.9 TPY)		BACT
NO <sub>x</sub> (DB)	Gas	0.1 lbs/MMBtu (10 lbs/hr, 43.8 TPY)		BACT
CO (CT)	Gas	15 ppmvd (48.8 lbs/hr; 213.7 TPY) <sup>D</sup>		BACT
	Oil	30 ppmvd (98.4 lbs/hr; 14.8 TPY)		BACT
CO (DB)	Gas	10 lbs/hr; 43.8 TPY		BACT
VOC (CT)	Gas	2.8 lbs/hr; 12.3 TPY		BACT
	Oil	7.5 lbs/hr; 1.1 TPY		BACT
VOC (DB)	Gas	2.9 lbs/hr; 12.7 TPY		BACT
PM <sub>10</sub> (CT)	Gas	9 lbs/hr; 39.4 TPY		BACT
	Oil	17 lbs/hr; 2.6 TPY		BACT
PM <sub>10</sub> (DB)	Gas	0.0100 lbs/MMBtu		BACT
SO <sub>2</sub> (CT)	Gas	4.86 lbs/hr; 21.3 TPY		Appl.
	Oil	99.7 lbs/hr; 15.0 TPY		Appl.
SO <sub>2</sub> (DB)	Gas	0.3 lbs/hr; 1.32 TPY		Appl.
H <sub>2</sub> SO <sub>4</sub> (CT)	Gas	5.95 x 10 <sup>-1</sup> lbs/hr; 2.6 TPY		Appl.
	Oil	1.22 lbs/hr; 0.183 TPY		Appl.
H <sub>2</sub> SO <sub>4</sub> (DB)	Gas	3.7 x 10 <sup>-2</sup> lbs/hr; 1.61 x 10 <sup>-1</sup> TPY		Appl.
Opacity	Gas	10% opacity <sup>D</sup>		BACT
	Oil	20% opacity <sup>D</sup>		BACT
Hg	Oil	3.0 x 10 <sup>-6</sup> lbs/MMBtu (5.55 x 10 <sup>-3</sup> lbs/hr; 8.32 x 10 <sup>-4</sup> TPY)		Appl.
As	Oil	4.2 x 10 <sup>-6</sup> lbs/MMBtu (7.77 x 10 <sup>-3</sup> lbs/hr; 1.17 x 10 <sup>-3</sup> TPY)		BACT
Be	Oil	2.5 x 10 <sup>-6</sup> lbs/MMBtu (4.62 x 10 <sup>-3</sup> lbs/hr; 6.94 x 10 <sup>-4</sup> TPY)		BACT
Pb	Oil	8.9 x 10 <sup>-6</sup> lbs/MMBtu (1.65 x 10 <sup>-2</sup> lbs/hr; 2.47 x 10 <sup>-3</sup> TPY)		Appl.

A) Fuel: Natural Gas: Emissions are based on 8760 hours per year operating time.

Fuel: Distillate Fuel Oil (0.05% S): Emissions are based on fuel usage equivalent to 300 hours per year at maximum capacity (i.e., 3,742,327 gallons per year).

B) The NO<sub>x</sub> maximum limit will be lowered to 97.2 (lbs/hr) equivalent to 15 ppmvd @ 15% O<sub>2</sub> not later than 12/31/97 using appropriate combustion technology improvements or SCR.

C) Emission rates are based on 27°F at base load.

D) At full load conditions.



Progress Energy  
Tiger Bay Cogeneration Facility  
**Facility ID No.:** 1050223  
Polk County

**Title V Air Operation Permit Renewal**

**DRAFT Permit No.:** 1050223-012-AV

(Renewal of Title V Air Operation Permit No.: 1050223-002-AV)

**Permitting Authority**

State of Florida  
Department of Environmental Protection  
Division of Air Resources Management  
Bureau of Air Regulation  
Title V Section  
Mail Station #5505  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400  
Telephone: 850/488-0114  
Fax: 850/922-6979

**Compliance Authority:**

State of Florida  
Department of Environmental Protection  
Southwest District Office  
3804 Coconut Palm Drive  
Tampa, Florida 33619-8218  
Telephone: 813/744-6100  
Fax: 813/744-6084

## Title V Air Operation Permit Renewal

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Jeb Bush  
Governor

# Department of Environmental Protection

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

Colleen M. Castille  
Secretary

**Permittee:**  
Progress Energy  
3219 State Road 630 West  
Ft. Meade, Florida 33841

**DRAFT Permit No.:** 1050223-012-AV  
**Facility ID No.:** 1050223  
**SIC Nos.:** 49, 4911  
**Project:** Title V Permit Renewal

The purpose of this permit is to renew the Title V Air Operation Permit for the subject facility and to incorporate the revisions made in Air Construction Permit 1050223-013-AC / PSD-FL-190A. This existing facility is located at 3219 State Road 630 East, Ft. Meade, Polk County.

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

**Referenced attachments made a part of this permit:**

Appendix I-1, List of Insignificant Emissions Units and/or Activities  
Phase II Acid Rain Permit Application/Compliance Plan received May 18, 2004  
Appendix SS-1, Stack Sampling Facilities (version dated 10/7/96)  
Appendix TV-4, Title V Conditions (version dated 2/12/02)  
Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996)

**Effective Date:** January 1, 2005  
**Renewal Application Due Date:** July 5, 2009  
**Expiration Date:** December 31, 2009

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Michael G. Cooke, Director  
Division of Air Resource Management

MGC/jkp/jh

*"More Protection, Less Process"*

*Printed on recycled paper.*

## **Section I. Facility Information.**

### **Subsection A. Facility Description.**

This facility consists of a single combustion turbine (CT) that exhausts through a heat recovery steam generator (HRSG). The facility is permitted to combust natural gas as the primary fuel and distillate fuel oil as back-up fuel. However, the fuel oil capability has yet to be installed. The total combined capacity of the facility is 269.5 megawatts. A nominal 184 megawatts are provided by the combustion turbine. In addition, a nominal 85.5 megawatts are provided by a steam generator. Emissions unit -001 is regulated under Acid Rain Phase II.

Also included in this permit are miscellaneous insignificant emissions units and/or activities. One of the insignificant emissions units is an auxiliary natural gas-fired steam boiler. The maximum heat input of this small auxiliary boiler is 2.8 MMBtu/hr.

Based on the Title V permit application received May 18, 2004, this facility is not a major source of hazardous air pollutants (HAPs).

The use of 'Permitting Notes' throughout this permit are for informational purposes, only, and are not permit conditions.

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

#### Regulated Emissions Units:

#### **E.U. ID**

#### **No.**

#### **Brief Description**

-001	Combustion Turbine and Heat Recovery Steam Generator
-003	Auxiliary Boiler

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

**Subsection C. Relevant Documents.**

The following documents are part of this permit:

Appendix I-1, List of Insignificant Emissions Units and/or Activities  
Phase II Acid Rain Permit Application/Compliance Plan received May 18, 2004  
Appendix SS-1, Stack Sampling Facilities (version dated 10/7/96)  
Appendix TV-4, Title V Conditions (version dated 2/12/02)  
Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System  
Performance (40 CFR 60, July, 1996)

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

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

Appendix H-1, Permit History  
Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers (version dated 2/5/97)  
Table 1-1, Summary of Air Pollutant Standards and Terms  
Table 2-1, Summary of Compliance Requirements  
Statement of Basis

These documents are on file with the permitting authority:

Title V Permit Renewal Application Received Electronically (EPSAP) on May 18, 2004  
Letter From Mr. Roger Zirkle Dated July 8, 2004

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

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

1. Appendix TV-4, Title V Conditions, is a part of this permit.

{Permitting note: Appendix TV-4, Title V Conditions is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided one copy when requested or otherwise appropriate. If desired, a copy of Appendix TV-4, Title V Conditions can be downloaded from the Division of Air Resources Management's Internet Web site located at the following address:

<http://www.dep.state.fl.us/air/permitting/writertools/t5/TV-4.doc>.

2. **Not federally enforceable. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited.** The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

[Rule 62-296.320(2), F.A.C.]

3. Prevention of Accidental Releases (Section 112I of CAA).

- (a) The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center, Post Office Box 1515, Lanham-Seabrook, MD 20703-1515

Telephone: 301/429-5018

and,

- (b) The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.

[40 CFR 68]

4. Insignificant Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.

[Rules 62-213.440(1), 62-213.430(6), and 62-4.040(1)(b), F.A.C.]

5. **General Pollutant Emission Limiting Standards. Volatile Organic Compounds Emissions or Organic Solvents Emissions.** The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.

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

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

6. **General Particulate Emission Limiting Standards. General Visible Emissions Standard.** Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.

[Rules 62-296.320(4)(b)1. & 4., F.A.C.]

7. Emissions of Unconfined Particulate Matter. Pursuant to Rules 62-296.320(4)I1., 3. & 4., F.A.C., reasonable precautions to prevent emissions of unconfined particulate matter at this facility include the following requirements (see Condition 57. of APPENDIX TV-4, TITLE V CONDITIONS):

The following requirements are “not federally enforceable”:

- a. Maintenance of paved roads as necessary.
- b. Regular mowing of grass and care of vegetation.
- c. Limiting access to plant property by unnecessary vehicular traffic.

[Rule 62-296.320(4)I2., F.A.C.; and, proposed by applicant in initial Title V permit application received May 18, 2004.]

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

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

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

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

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

10. The Department’s Southwest District Office (Tampa) telephone number for reporting problems, malfunctions or exceedances under this permit is 813/744-6100, day or night, and for emergencies involving a significant threat to human health or the environment is 850/413-9911. The Department’s Southwest District Office (Tampa) telephone number for routine business, including compliance test notifications, is 813/744-6100 during normal working hours.

11. The permittee shall submit all compliance related notifications and reports required of this permit (other than Acid Rain Program Information) to the Department’s Southwest District office:

Department of Environmental Protection  
Southwest District Office  
3804 Coconut Palm Drive  
Tampa, Florida 33619-8218  
Telephone: 813/744-6100  
Fax: 813/744-6084

Acid Rain Program Information shall be submitted, as necessary, to:

Department of Environmental Protection  
2600 Blair Stone Road  
Mail Station #5510  
Tallahassee, Florida 32399-2400  
Telephone: 850/488-6140  
Fax: 850/922-6979

12. Any reports, data, notifications, certifications, and requests (other than Acid Rain Program Information) required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency, Region 4  
Air, Pesticides & Toxics Management Division  
Air and EPCRA Enforcement Branch, Air Enforcement Section  
61 Forsyth Street  
Atlanta, Georgia 30303  
Telephone: 404/562-9155  
Fax: 404/562-9164

Acid Rain Program Information should be sent to:

United States Environmental Protection Agency, Region 4  
Air, Pesticides & Toxics Management Division  
Acid Rain Section  
61 Forsyth Street  
Atlanta, Georgia 30303  
Telephone: 404/562-9102  
Fax: 404/562-9095



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

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

##### E.U. ID No. Brief Description

-001 Combustion Turbine and Heat Recovery Steam Generator

This emissions unit is a co-generation facility consisting of a combustion turbine (CT) and a heat recovery steam generator (HRSG). The CT is permitted to combust natural gas (primary fuel) and fuel oil (back-up), was manufactured by General Electric (model number MS7221 FA), produces a nominal 184 megawatts (MW) and exhausts through the HRSG, which produces another 86 MW, for a combined total of 270 MW.

{Permitting notes: The CT is regulated under 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines; Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD): Permit No. PSD-FL-190; Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT); and, Florida Electrical Power Plant Site Certificate No. PA97-37. The facility began commercial operation on July 20, 1994. Stack height = 180 feet, exit diameter = 19.0 feet, exit temperature = 205 °F, actual volumetric flow rate = 1,072,001 acfm. The actual volumetric flow rate may change as a result of the load and the turbine inlet temperature. Emissions from the CT are controlled by the use of dry low-NO<sub>x</sub> (DLN 2.6) burners when firing natural gas and by water injection while firing fuel oil. Unit is exempt from CAM due to use of NO<sub>x</sub> CEMS for continuous compliance.}

**A.0. Compliance Plan for Firing Fuel Oil.** This emissions unit has never fired fuel oil; therefore, it has not yet completed the 40 CFR 60.8 requirements to perform an initial compliance test while firing fuel oil. In order to obtain the authority to commercially operate the combustion turbine while firing fuel oil, the following events must be completed:

- (a) A notification of the first day that fuel oil will be fired must be submitted to the Southwest District office (SWD) before it is fired.
- (b) Compliance testing on fuel oil, which meets all of the applicable requirements contained in Specific Conditions **A.41. – A.68.**, must be completed no later than 60 days after reaching maximum firing capacity on fuel oil in order to demonstrate compliance with all of the emissions limitations contained in Specific Conditions **A.8. – A.27.** It should be noted that specific condition A.6.(b) limits the firing of fuel oil to 3,742,327 gallons per calendar year. If fuel oil were to be fired exclusively (i.e. natural gas curtailment), at maximum operation rate the gallons per year limitation would be reached in approximately 275 hours. The initial compliance test on fuel oil must be completed before the first annual allotment of fuel oil is consumed.
- (c) A notification of performing the compliance testing must be submitted to the SWD at least 30 days prior to performing the test.
- (d) Test results must be submitted to the SWD for approval within 45 days of performing the compliance test.

[40 CFR 60.8; Rules 62-4.070(3), 62-212.400(7)(b) and 62-213.420(1)(a)5., F.A.C.]

#### General

**A.1. Definitions.** For the purposes of Rule 62-204.800(7), F.A.C., the definitions contained in the various provisions of 40 CFR 60, shall apply except that the term “Administrator” when used in 40 CFR

60, shall mean the Secretary or the Secretary's designee.  
[40 CFR 60.2; Rule 62-204.800(7)(a), F.A.C.]

**A.2. Circumvention.** No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.  
[40 CFR 60.12]

**A.3. Modifications.** Except as provided under 40 CFR 60.14(e) and (f), any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 11 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.  
[40 CFR 60.14(a)]

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

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

**A.4. Permitted Capacity.** The maximum heat input to the Combustion Turbine (CT) shall not exceed:  
(a) 1,710 MMBtu/hr (LHV) at 27°F and at base load for natural gas.  
(b) 1,849.9 MMBtu/hr (LHV) at 27°F and at base load for distillate fuel oil.  
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; 40 CFR 60.332(b); PSD-FL-190; and, 1050223-001-AC].

{Permitting note: The heat input is dependent upon the ambient temperature in accordance with the manufacturer's curves.}

**A.5. Emissions Unit Operating Rate Limitation After Testing.** See Specific Condition **A.54**.  
[Rule 62-297.310(2), F.A.C.]

**A.6. Methods of Operation.**  
(a) Natural gas shall be the primary fuel fired in the CT. No. 2 distillate fuel oil may be fired as "back-up" fuel, only. The burning of other fuels requires review, public notice, and approval through the pre-construction process (Chapters 62-210 and 62-212, F.A.C.).  
(b) Distillate fuel oil can be used as a backup fuel in the CT up to 3,742,327 gallons per calendar year.  
(c) Water injection shall be used when firing No. 2 fuel oil, for control of NO<sub>x</sub> emissions.  
[Rule 62-213.410, F.A.C.; AC53-214903; PSD-FL-190]

**A.7. Hours of Operation.** This emissions unit may operate continuously, i.e., 8760 hours per year.  
[Rule 62-210.200(PTE), F.A.C.; AC53-214903; PSD-FL-190]

### **Emission Limitations and Standards**

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

{Permitting Note: The following emission rates as established by BACT in PSD-FL-190, are based on 27°F at base load. For NO<sub>x</sub> and SO<sub>2</sub>, meeting the BACT limits assures compliance with the NSPS limits.}

{Permitting Note: Unless otherwise specified, the averaging times for Specific Conditions A.8.-A.27. are based on the specified averaging time of the applicable test method.}

**A.8. Nitrogen Oxides.** Nitrogen oxide emissions from the CT shall not exceed 42 ppmvd at 15 percent oxygen, 326 pounds per hour (lbs/hr) nor 48.9 tons per year (TPY), while burning distillate fuel oil.

[AC53-214903; PSD-FL-190]

**A.9. Nitrogen Oxides.**

(a) Nitrogen oxide emissions from the CT shall not exceed 15 ppmvd at 15 percent oxygen, 97.2 lbs/hr nor 425.7 TPY, while burning natural gas. This limit will be achieved by using appropriate combustion technology improvements or SCR. If SCR is chosen as the control technology, the maximum nitrogen oxides emission limits shall not exceed 10 ppmvd at 15 percent oxygen, 64.8 lbs/hr, nor 283.8 TPY.

(b) The maximum allowable nitrogen oxide emissions resulting from a start up or shut down of the CT shall not exceed an average of 120 lbs/hour, based on a 24 hour period commencing with the beginning of a start up or a shut down of the unit. The 24-hour average shall be based on all available data excluding calibration data and periods of emissions due to malfunction during the start up period.

[Rule 62-210.700(5), F.A.C.; AC53-214903 / PSD-FL-190, 1050223-007-AC, 1050223-013-AC / PSD-FL-190A]

**A.10. Nitrogen Oxides.** Nitrogen oxides from the CT, while firing distillate fuel oil, shall be controlled by water injection. The minimum water-to-fuel ratio that must be met will be established and incorporated into this permit condition at such time that fuel oil is fired and compliance is demonstrated. **(Although currently allowed to fire distillate fuel oil, the fuel oil storage tanks and piping have not yet been installed at this facility.)**

[40 CFR 60.334(a); AC53-214903; PSD-FL-190]

**A.11. Sulfur Dioxide.** Sulfur dioxide emissions from the CT shall not exceed 99.7 lbs/hr nor 15.0 TPY, while burning distillate fuel oil.

[AC53-214903; PSD-FL-190]

**A.12. Sulfur Dioxide.** Sulfur dioxide emissions from the CT shall not exceed 4.86 lbs/hr nor 21.3 TPY, while burning natural gas.

[AC53-214903; PSD-FL-190]

**A.13. Sulfur Dioxide – Sulfur Content.** The sulfur content of the fuel oil fired by the stationary gas turbine may be used to determine compliance with 40 CFR 60.333(a). Under such circumstances, the permittee shall not fire in any stationary gas turbine any fuel which contains a sulfur content in excess of

0.05 percent, by weight.

[AC53-214903; PSD-FL-190]

**A.14. Particulate Matter/PM<sub>10</sub>.** Particulate matter emissions of 10 microns or less from the CT shall not exceed 17 lbs/hr nor 2.6 TPY, while burning distillate fuel oil.

[AC53-214903; PSD-FL-190]

**A.15. Particulate Matter/PM<sub>10</sub>.** Particulate matter emissions of 10 microns or less from the CT shall not exceed 9.0 lbs/hr nor 39.4 TPY, while burning natural gas.

[AC53-214903; PSD-FL-190]

**A.16. Carbon Monoxide.** Carbon monoxide emissions from the CT shall not exceed 30 ppmvd, 98.4 lbs/hr nor 14.8 TPY, while burning distillate fuel oil.

[AC53-214903; PSD-FL-190]

**A.17. Carbon Monoxide.** Carbon monoxide emissions from the CT shall not exceed 15 ppmvd, 48.8 lbs/hr nor 213.7 TPY, while burning natural gas at full load conditions.

[AC53-214903; PSD-FL-190]

**A.18. Volatile Organic Compounds (VOCs).** VOC emissions from the CT shall not exceed 7.5 lbs/hr nor 1.1 TPY, while burning distillate fuel oil.

[AC53-214903; PSD-FL-190]

**A.19. Volatile Organic Compounds (VOCs).** VOC emissions from the CT shall not exceed 2.8 lbs/hr nor 12.3 TPY, while burning natural gas.

[AC53-214903; PSD-FL-190]

**A.20. Sulfuric Acid (H<sub>2</sub>SO<sub>4</sub>).** H<sub>2</sub>SO<sub>4</sub> emissions from the CT shall not exceed 1.22 lbs/hr nor 0.183 TPY, while burning distillate fuel oil.

[AC53-214903; PSD-FL-190]

**A.21. Sulfuric Acid (H<sub>2</sub>SO<sub>4</sub>).** H<sub>2</sub>SO<sub>4</sub> emissions from the CT shall not exceed 0.595 lbs/hr nor 2.6 TPY, while burning natural gas.

[AC53-214903; PSD-FL-190]

**A.22. Visible Emissions.** Visible emissions shall not exceed 20 percent opacity while burning distillate fuel oil.

[AC53-214903; PSD-FL-190]

**A.23. Visible Emissions.** Visible emissions shall not exceed 10 percent opacity while burning natural gas.

[AC53-214903; PSD-FL-190]

**A.24. Mercury.** Mercury emissions from the CT shall not exceed  $3.0 \times 10^{-6}$  lbs/MMBtu,  $5.5 \times 10^{-3}$  lbs/hr nor  $8.32 \times 10^{-4}$  TPY, while firing distillate fuel oil.

[AC53-214903; PSD-FL-190]

**A.25. Arsenic.** Arsenic emissions from the CT shall not exceed  $4.2 \times 10^{-6}$  lbs/MMBtu,  $7.77 \times 10^{-3}$  lbs/hr nor  $1.17 \times 10^{-3}$  TPY, while firing distillate fuel oil.  
[AC53-214903; PSD-FL-190]

**A.26. Beryllium.** Beryllium emissions from the CT shall not exceed  $2.5 \times 10^{-6}$  lbs/MMBtu,  $4.62 \times 10^{-3}$  lbs/hr nor  $6.94 \times 10^{-4}$  TPY, while firing distillate fuel oil.  
[AC53-214903; PSD-FL-190]

**A.27. Lead.** Lead emissions from the CT shall not exceed  $8.9 \times 10^{-6}$  lbs/MMBtu,  $1.65 \times 10^{-2}$  lbs/hr nor  $2.47 \times 10^{-3}$  TPY, while firing distillate fuel oil.  
[AC53-214903; PSD-FL-190]

### **Excess Emissions**

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

#### **A.28. Excess Emissions.**

- (a) Excess emissions resulting from startup, shutdown, or malfunction of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
- (b) Excess emissions resulting from a combustor tuning session shall be permitted provided the tuning session is performed in accordance with the manufacturer's specifications and in no case shall exceed 72 hours in any calendar year. A "tuning session" would occur after a combustor change-out, a repair to a combustor, or as required to maintain compliance. Prior to performing any tuning session, the permittee shall provide the Compliance Authority with an advance notice that details the activity and proposed tuning schedule. The notice may be made by telephone, facsimile transmittal, or electronic mail.

[Rule 62-210.700(1) & (5), F.A.C.; and, 1050223-013-AC / PSD-FL-190A]

**A.29.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.  
[Rule 62-210.700(4), F.A.C.]

**A.30.** For the purpose of reports required under 40 CFR 60.7I, periods of excess emissions that shall be reported are defined as follows:

- (1) *Nitrogen oxides.* Any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with 40 CFR 60.332 by the performance test required in 40 CFR 60. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, and gas turbine load during the period of excess emissions, and the graphs or figures developed under 40 CFR 60.335(a).

[40 CFR 60.334I(1)]

{Permitting Note: A properly installed and maintained NO<sub>x</sub> CEMS may be used as an acceptable alternative to measure periods of excess emissions.}

### **Monitoring of Operations**

**A.31.** At all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[40 CFR 60.11(d)]

**A.32.** The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG, and using water injection to control NO<sub>x</sub> emissions shall install and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. This system shall be accurate to within  $\pm 5.0$  percent and shall be approved by the Administrator.

[40 CFR 60.334(a)]

**A.33.** The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG shall monitor sulfur content and nitrogen content of the fuel being fired in the turbine. The frequency of determination of these values shall be as follows:

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

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

**A.34.** The following custom fuel monitoring schedules shall be used at this facility:

(a) Natural Gas.

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

- (1) Monitoring of fuel nitrogen content shall not be required when NG is the only fuel being fired in the turbines.
- (2) Sulfur Monitoring
  - a. Analysis for fuel sulfur content of the NG fired at this facility shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are ASTM D1072-80, ASTM D3031-81, ASTM D3246-81, and ASTM D4084-82, as referenced in 40 CFR 60.335(b)(2).

{Permitting Note: Retention of vendor delivery receipts is an acceptable alternative in-lieu of on-site fuel testing, as long as the tests performed by the vendor meet the above conditions.}

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

(b) Distillate Fuel Oil.

The records of distillate fuel oil usage shall be kept by the company for a five-year period for regulatory agency inspection purposes. For sulfur dioxide, periods of excess emissions shall be reported if the distillate fuel oil being fired in the gas turbine exceeds 0.05 percent sulfur content, by weight.

[Approved and effective December 6, 1994.]

**A.35. Determination of Process Variables.**

- (a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- (b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

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

### **Continuous Monitoring Requirements**

**A.36.** The permittee shall have installed and shall calibrate, maintain, and operate a continuous emission monitor in the stack to measure and record the nitrogen oxide emissions from this source. The continuous emissions monitoring systems must comply with the certification and quality assurance, and other applicable requirements from 40 CFR 60, Appendix B, Performance Specification 2 (July 2, 1992) or 40 CFR 75, whichever is more stringent. Periods of startup, shutdown, malfunction, and fuel switching shall be monitored, recorded, and reported as excess emissions when emission levels exceed the standards in specific conditions **A.8. – A.10.** following the format of 40 CFR 60.7 (1997 version).

[AC53-214903 / PSD-FL-190

**A.37.** For the purposes of 40 CFR 60.13, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of 40 CFR 60.13 upon promulgation of performance specifications for continuous monitoring systems under Appendix B of 40 CFR 60 and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, Appendix F of 40 CFR 60, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.

[40 CFR 60.13(a)]

{Permitting Note: The requirements for the NO<sub>x</sub> CEMS which are installed and maintained in accordance with 40 CFR 75 are at least as stringent as the requirements of 40 CFR 60, and are an acceptable alternative to this condition.}

**A.38.** All continuous monitoring systems (CMS) or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of Appendix B of 40 CFR 60 shall be used.

[40 CFR 60.13(f)]

**A.39.** Use of NO<sub>x</sub> CEMS For Continuous Compliance. Pursuant to 40 CFR 64.2(b)(1)(vi), the applicant has elected to use the existing certified Acid Rain NO<sub>x</sub> continuous emissions monitor as a continuous compliance determination method in order to be exempted from the Compliance Assurance Monitoring (CAM) requirements contained in 40 CFR 64.

[40 CFR 64.2(b)(vi); and, Applicant Request]

### **Required Tests, Test Methods and Procedures**

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

**A.40.** Annual Tests Required. For this emissions unit, annual testing must be conducted for NO<sub>x</sub>, SO<sub>2</sub>, CO, H<sub>2</sub>SO<sub>4</sub> and VE, in accordance with the requirements listed below. PM testing is only required if the VE test indicates an exceedance of the standards. VOC testing is only required if the CO test indicates an exceedance of the standard.

[1050223-006-AC; AC53-214903; PSD-FL-190]

{Permitting Note: Although emission limits have been established for Mercury, Arsenic, Beryllium and Lead, PSD-FL-190 only requires an initial compliance test. There is no requirement for subsequent



periodic testing, however, under the provisions of Rule 62-297.310(7)(b), F.A.C., if the Department has reason to believe the emission limits are not being met, a special compliance test can be ordered.}

**A.41. Nitrogen Oxides.** To compute the nitrogen oxide emissions, the owner or operator shall use analytical methods and procedures that are accurate to within 5 percent and are approved by the Department to determine the nitrogen content of the fuel being fired.  
[40 CFR 60.335(a)]

**A.42.. Nitrogen Oxides and Sulfur Dioxide.** The owner or operator shall determine compliance with the nitrogen oxides and sulfur dioxide standards in 40 CFR 60.332 and 60.333(a) as follows:  
(3). EPA Method 20 (40 CFR 60, Appendix A) shall be used to determine the nitrogen oxides, sulfur dioxide, and oxygen concentrations. The span values shall be 100 ppm of nitrogen oxide and 21 percent oxygen. The NO<sub>x</sub> emissions shall be determined at each of the load conditions specified in 40 CFR 60.335I(2).  
[40 CFR 60.335I(3); and, applicant request.]

**A.43. Sulfur Dioxide – Sulfur Content.** The owner or operator shall determine compliance with the sulfur content standard of 0.05 percent, by weight, as follows: ASTM D 2880-96, or the latest edition, shall be used to determine the sulfur content of liquid fuels and ASTM D 1072-90(94)E-1, D 3031-81(86), D 4084-94, D 3246-92, ASTM 1552-95, or the latest edition, shall be used for the sulfur content of gaseous fuels (incorporated by reference-see 40 CFR 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Administrator.  
[40 CFR 60.335(d); and, applicant request.]

{Permitting Note: Retention of vendor delivery receipts is an acceptable alternative in-lieu of on-site fuel testing, as long as the tests performed by the vendor meet the above conditions.}

**A.44. Nitrogen and Sulfur Contents.** To meet the requirements of 40 CFR 60.334(b), the owner or operator shall use the methods specified in 40 CFR 60.335(a) and 40 CFR 60.335(d) of 40 CFR 60.335 to determine the nitrogen and sulfur contents of the fuel being burned. The analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.  
[40 CFR 60.335(e)]

**A.45. Sulfur Dioxide and Sulfuric Acid Mist.** EPA Method 8 pursuant to Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A, shall be used to determine compliance with the sulfur dioxide and sulfuric acid mist standards in specific conditions **A.11. – 13., A.20. & A.21..** Compliance with the sulfur dioxide and sulfuric acid mist emission limits can also be determined by calculations based on fuel analysis using ASTM D4294 (or latest edition) for the sulfur content of liquid fuels and ASTM D3246-81 (or latest edition) for sulfur content of gaseous fuel.  
[AC53-214903; PSD-FL-190]

**A.46. Carbon Monoxide (CO).** EPA Method 10 pursuant to Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A, shall be used to determine compliance with the CO standards in specific conditions **A.17. & A.18.**  
[AC53-214903; PSD-FL-190]

**A.47. Volatile Organic Carbons (VOC).** EPA Method 25A pursuant to Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A, shall be used to determine compliance with the VOC standards in specific conditions **A.18. & A.19.** Annual VOC testing shall not be required provided that the annual CO test demonstrates emissions below the CO limits in specific conditions **A.16. & A.17.** EPA Method 3A may be used to determine oxygen concentrations.

[1050223-006-AC; AC53-214903; PSD-FL-190]

**A.48. Visible Emissions.** EPA Method 9 pursuant to Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A, shall be used to determine compliance with the visible emissions standard in specific conditions **A.22. & A.23.** If the annual VE test indicates non-compliance with the standards, then a test for particulate matter shall be conducted using either EPA Method 5 or EPA Method 17 or EPA Methods 201A and 202.

[Rule 62-297.401, F.A.C.; 40 CFR 60, Appendix A; and, AC53-214903; PSD-FL-190]

**A.49.** Compliance with standards in 40 CFR 60, other than opacity standards, shall be determined only by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard.

[40 CFR 60.11(a)]

**A.50.** Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

[40 CFR 60.8I]

**A.51.** The owner or operator shall provide, or cause to be provided, stack sampling and performance testing facilities as follows:

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

[40 CFR 60.8(e)(1), (2), (3) & (4); and, PSD-FL-190]

**A.52. Required Stack Sampling Facilities.** When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.

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

**A.53. Required Number of Test Runs.** For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run

cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

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

**A.54. Operating Rate During Testing.** Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. The turbine manufacturer's capacity vs. temperature (ambient) curve shall be included with the compliance test results.

[Rules 62-297.310(2) & (2)(a), F.A.C., PSD-FL-190]

**A.55. Nitrogen Oxides.** The test methods for nitrogen oxide emissions shall be EPA Method 20. During performance tests, to determine compliance with the NSPS NO<sub>x</sub> standard, measured NO<sub>x</sub> emissions at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor:

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

where:

NO<sub>x</sub> = emission rate of NO<sub>x</sub> at 15 percent O<sub>2</sub> and ISO standard ambient conditions, volume percent.

NO<sub>xO</sub> = observed NO<sub>x</sub> concentration, ppm by volume.

P<sub>r</sub> = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg.

P<sub>o</sub> = observed combustor inlet absolute pressure at test, mm Hg.

H<sub>o</sub> = observed humidity of ambient air, g H<sub>2</sub>O/g air.

E = transcendental constant, 2.718.

T<sub>a</sub> = ambient temperature, °K.

[40 CFR 60.335I(1)]

{Permitting Note: If testing is performed at 95% - 100% of rated capacity then the requirements of this specific condition are not applicable.}

**A.56.** The monitoring device of 40 CFR 60.334(a) shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with the permitted NO<sub>x</sub> standard at 30, 50, 75, and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer.

{Permitting Note: If testing is performed at 95% - 100% of rated capacity then the requirements of this specific condition are not applicable.}

**A.57. Calculation of Emission Rate.** The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs

unless otherwise specified in a particular test method or applicable rule.  
[Rule 62-297.310(3), F.A.C.]

**A.58. Applicable Test Procedures.**

**(a) Required Sampling Time.**

- (1) Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
- (2) **Opacity Compliance Tests.** When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
  - a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
  - b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
  - c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

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

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

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

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

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

TABLE 297.310-1  
CALIBRATION SCHEDULE

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

**A.59. Frequency of Compliance Tests.** The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

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

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

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

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

**Recordkeeping and Reporting Requirements**

**A.60.** To determine compliance with the oil firing heat input limitation, the permittee shall maintain daily records of fuel oil consumption and hourly usage for the turbine and the average heating value for

the fuel oil. Average fuel oil heating rate shall be the calendar year annual average higher heating value of #2 fuel oil purchased for the permittee's bulk fuel oil storage facility. All records shall be maintained for a minimum of five (5) years after the date of each record and shall be made available to representatives of the Department upon request.

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

**A.61.** The owner or operator subject to the provisions of 40 CFR 60 shall furnish the Administrator written notification as follows:

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

[40 CFR 60.7(a)(4)]

**A.62.** The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or, any periods during which a continuous monitoring system or monitoring device is inoperative.

[40 CFR 60.7(b)]

**A.63.** The owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report and/or a summary report form [see 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30<sup>th</sup> day following the end of each calendar half (or quarter, as appropriate). Written reports of excess emissions shall include the following information:

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

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

**A.64.** The summary report form shall contain the information and be in the format shown in Figure 1 (attached) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

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

percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7I need not be submitted unless requested by the Administrator.

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

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

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

**A.65.** (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7I, an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

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

[40 CFR 60.7(e)(1)]



**A.66.** The owner or operator subject to the provisions of 40 CFR 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and, all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least **5 (five)** years following the date of such measurements, maintenance, reports, and records.

[40 CFR 60.7(f); Rule 62-213.440(1)(b)2.b., F.A.C.]

**A.67.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

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

**A.68.** Test Reports.

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
- (b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.
  - 1 The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA Method 9 test, shall provide the following information:
    1. The type, location, and designation of the emissions unit tested.
    2. The facility at which the emissions unit is located.
    3. The owner or operator of the emissions unit.
    4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
    5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
    6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
    7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
    8. The date, starting time and duration of each sampling run.
    9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
    10. The number of points sampled and configuration and location of the sampling plane.
    11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
    12. The type, manufacturer and configuration of the sampling equipment used.
    13. Data related to the required calibration of the test equipment.
    14. Data on the identification, processing and weights of all filters used.
    15. Data on the types and amounts of any chemical solutions used.

16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

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

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

**E.U. ID**

<b><u>No.</u></b>	<b><u>Brief Description</u></b>
-003	Auxiliary Boiler

This emission unit is a 100 million Btu per hour (MMBtu/hr) package steam generation unit (boiler), manufactured by Cleaver-Brooks (Model DL-94). At 100 MMBtu/hr, this unit is capable of generating 85,000 pounds of steam. The purpose of this unit is to provide a back-up supply of steam during periods of non-operation of the facility's combustion turbine. This steam will be used strictly to meet the requirements of a steam contract with the facility's property host.

{Permitting note(s): Emissions unit -003 is subject to the reporting requirements of 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60.40c – 60.48c, effective June 9, 1989); 40 CFR 60 Subpart A (effective July 1, 1997); and, is subject to the requirements of the state rules as indicated in this permit. Stack height = 40 feet, exit diameter = 4.0 feet, exit temperature = 320°F, actual volumetric flow rate = 29,162 acfm.}

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

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

**B.1. Permitted Capacity.** The maximum operation heat input rate is as follows:

<u>Unit No.</u>	<u>MMBtu/hr Heat Input</u>	<u>Fuel Type</u>
-003	100	Natural Gas

[Rules 62-4.160(2), 62-210.200(PTE) & 62-296.406, F.A.C.; and, 10550223-009-AC]

**B.2. Emissions Unit Operating Rate Limitation After Testing.** See common condition **B.17**.  
[Rule 62-297.310(2), F.A.C.]

**B.3. Methods of Operation – Fuels.** Pipeline quality natural gas is the only fuel allowed to be fired in the auxiliary boiler.  
[Rules 62-4.160(2) and 62-213.440(1), F.A.C.; and, 1050223-009-AC.]

**B.4. Hours of Operation.** This emissions unit shall only operate up to 6,000 hours during any consecutive 12-month period.  
[Rules 62-213.440 and 62-210.200, F.A.C.; and, 1050223-009-AC.]

**Emission Limitations and Standards**

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

{Permitting Note: Unless otherwise specified, the averaging times for Specific Conditions **B.5.-B.8.** are based on the specified averaging time of the applicable test method.}

**B.5. Visible Emissions.** Visible Emissions shall not exceed 20 percent opacity except for one six-minute period per hour during which opacity shall not exceed 27 percent.  
[Rule 62-296.406(1), F.A.C.; and, 1050223-009-AC.]

**B.6. Particulate Matter.** Particulate matter emissions shall be controlled by the firing of natural gas.  
[Rule 62-296.406(2), F.A.C.; BACT; and, 1050223-009-AC.]

**B.7. Sulfur Dioxide.** Sulfur dioxide emissions shall be controlled by the firing of natural gas.  
[Rule 62-296.406(3), F.A.C.; BACT; and, 1050223-009-AC.]

**B.8. Nitrogen Oxides:** Nitrogen oxide emissions shall not exceed 0.10 lb/MMBtu (30 tons per year), as measured by applicable compliance methods.  
[Rule 62-4.070(3), F.A.C.; BACT; and, 1050223-009-AC.]

### **Excess Emissions**

{Permitting Note: The excess emissions rule at 62-210.700, F.A.C., cannot vary any requirement of a NSPS, NESHAP, or Acid Rain program provision.}

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

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

### **Required Tests**

**B.11. Visible Emissions:** Unit -003 shall be tested annually for visible emissions, in accordance with the requirements listed below.  
[Rule 62-297.320(7)(a)4., F.A.C.; and, 1050223-009-AC.]

**B.12. Nitrogen Oxides Emissions:** Prior to applying for a Title V operation permit renewal, Unit -003 shall be tested for nitrogen oxides emissions, in accordance with the requirements listed below.  
[Rule 62-297.320(7)(a)4., F.A.C.; and, 1050223-009-AC.]

### **Test Methods and Procedures**

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

**B.13. Visible Emissions:** The test method for visible emissions shall be DEP Method 9 (see Specific condition **B.14.**), incorporated in Chapter 62-297, F.A.C.  
[Rules 62-213.440 and 62-296.405(1)(e)1., F.A.C.; and, 1050223-009-AC.]

**B.14. DEP Method 9:** The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:

- (a) EPA Method 9, Section 2.4, Recording Observations. Opacity observations shall be made and recorded by a certified observer at sequential fifteen-second intervals during the required period of observation.
- (b) EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g., 20 percent opacity), the test result shall be the highest valid six-minute average for the set of observations taken. For multiple-valued opacity standards (e.g., 20 percent opacity, except that an opacity of 27 percent is permissible for not more than six minutes per hour) opacity shall be computed as follows:
  1. For the basic part of the standard (i.e., 20 percent opacity), the opacity shall be determined as specified above for a single-valued opacity standard.
  2. For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken.

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

[Rule 62-297.401(9)I, F.A.C.; and, 1050223-009-AC.]

**B.15. Nitrogen Oxides:** The test method for Nitrogen oxide emissions shall be Method 7E, incorporated in Chapter 62-297, F.A.C.

[Rule 62-297.401(7)(e), F.A.C.; and, 1050223-009-AC.]

**B.16. Required Number of Test Runs:** For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard.

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

**B.17. Operating Rate During Testing:** Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operation at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is

allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

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

**B.18. Calculation of Emission Rate:** The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule.

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

**B.19. Applicable Test Procedures:**

(a) Required Sampling Time.

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
  - a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
  - b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
  - c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

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

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

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

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

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

TABLE 297.310-1  
CALIBRATION SCHEDULE

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

**B.20. Determination of Process Variables:**

- (a) **Required Equipment.** The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- (b) **Accuracy of Equipment.** Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

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

**B.21. Required Stack Sampling Facilities:** Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E. Sampling facilities shall also conform to the requirements of **Appendix SS-1**, attached.

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

**B.22. Test Notification:** The owner or operator shall notify the Department's district office and, if applicable, appropriate local program, at least 15 days prior to the date on which each formal compliance test is to begin. Notification shall include the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

[Rule 62-297.310(7)(a)9., F.A.C.; and, 40 CFR 60.8]

{Permitting Note: The federal requirements of 40 CFR 60.8 require 30 days notice of the initial test and any tests required under section 114 of the Clean Air Act, but the Department rules require 15 days notice for the annual compliance tests. Unless otherwise advised by the district office or, if applicable, appropriate local program, provide 15 days notice prior to conducting annual tests, except for the initial test when 30 days notice is required.}

**B.23. Special Compliance Tests:** When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions units and to provide a report on the results of said tests to the Department.

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

**Recordkeeping and Reporting Requirements**

**B.24.** The permittee shall record and maintain records of the amount of natural gas combusted during each day the auxiliary boiler is operated.

[40 CFR 60.48c(g)]



**B.25. Duration of Record Keeping:** Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

[Rules 62-4.160(14)(a)&(b) and 62-213.440(1)(b)2.b., F.A.C.; and, 40 CFR 60.48c(i).]

**B.26. Test Reports:**

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
- (b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- I The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
  - 1. The type, location, and designation of the emissions unit tested.
  - 2. The facility at which the emissions unit is located.
  - 3. The owner or operator of the emissions unit.
  - 4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
  - 5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission-limiting standard.
  - 6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
  - 7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
  - 8. The date, starting time and duration of each sampling run.
  - 9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
  - 10. The number of points sampled and configuration and location of the sampling plane.
  - 11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
  - 12. The type, manufacturer and configuration of the sampling equipment used.
  - 13. Data related to the required calibration of the test equipment.
  - 14. Data on the identification, processing and weights of all filters used.
  - 15. Data on the types and amounts of any chemical solutions used.
  - 16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
  - 17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.

18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

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

**B.27. Excess Emissions Report:** If excess emissions occur, the owner or operator shall notify the Department within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the New Source Performance Standards, excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A.

[Rule 62-4.130, F.A.C.]

**B.28. Excess Emissions Report – Malfunctions:** In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department or the appropriate local program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report if requested by the Department.

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

**B.29. Records of Hours of Operation.** The owner or operator shall maintain an operation log available for Department inspection that documents the hours of operation each day. This record shall equal the hours that fuel is fired. Within 10 days after the end of each month, a record shall be made of the hours of operation in the previous consecutive 12-month period.

[Rules 62-4.070(3) & 62-210.200(PTE), F.A.C.; and, 1050223-009-AC]

**B.30. Records of Heat Input.** The owner or operator shall maintain an operation log available for Department inspection that documents the average hourly heat input (higher heating value) to the boiler, as follows. At the end of each 24-hour period that the boiler operates, the average hourly heat input shall be calculated and recorded utilizing the quantity of fuel combusted (see Specific Condition **B.24.**), the actual hours operated in the previous 24-hour period (see Specific Condition **B.29.**), and the representative heat content (higher heating value) of the as-fired fuel. The heat content of the fuel can be obtained from either on-site testing or from the fuel supplier, as long as the information provided is representative of the as-fired fuel.

[Rules 62-4.070(3) & 62-210.200(PTE), F.A.C. ; and, 1050223-009-AC]

**Section IV. Acid Rain Part.**

**Operated by:** Tiger Bay Cogeneration Facility  
**ORIS Code:** 7699

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

The emissions unit listed below is regulated under Acid Rain Part, Phase II.

**E.U. ID**

<b><u>No.</u></b>	<b><u>Description</u></b>
-001	Combustion Turbine and Heat Recovery Steam Generator

**A.1.** The Phase II permit application submitted for this facility, as approved by the Department, is a part of this permit (included as an Attachment). The owners and operators of this Phase II acid rain units must comply with the standard requirements and special provisions set forth in the application listed below:

a. DEP Form No. 62-210.900(1)(a), dated 07/01/95.  
[Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

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

<b>E.U. ID No.</b>	<b>EPA ID</b>	<b>Year</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
-001	1	SO <sub>2</sub> allowances, under Table 2 or 3 of 40 CFR 73	0*	0*	0*	0*	0*

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

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

1. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.
  2. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.
  3. Allowances shall be accounted for under the Federal Acid Rain Program.
- [Rules 62-213.440(1)1., 2. & 3., F.A.C.]

**A.4. Statement of Compliance.** The annual statement of compliance pursuant to Rule 62-213.440(3), F.A.C., shall be submitted within 60 (sixty) days after the end of the calendar year.  
{See condition No. 51., Appendix TV-4, Title V Conditions.}  
[Rule 62-214.420(11), F.A.C.]

**A.5. Fast-Track Revisions of Acid Rain Parts.** Those Acid Rain sources making a change described at Rule 62- 214.370(4), F.A.C., may request such change as provided in Rule 62-213.413, Fast-Track Revisions of Acid Rain Parts.  
[Rules 62-213.413 and 62-214.370(4), F.A.C.]

**A.6.** No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400, F.A.C.  
[40 CFR 70.6(a)(4)(i); and, Rule 62-213.440(1)(c)1., F.A.C.]

**A.7.** Where an applicable requirement of the Act is more stringent than applicable regulations promulgated under Title IV of the Act, both provisions shall be incorporated into the permit and shall be enforceable by the Administrator.  
[40 CFR 70.6(a)(1)(ii); and, Rule 62-210.200, F.A.C., Definitions – Applicable Requirements.]

**A.8. Comments, notes, and justifications:** None.

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

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

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

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

#### Insignificant Emissions Related to Offices/Shop Area

1. Non-halogenated Solvent Degreasers

#### Insignificant Emissions Related to Lube Oil Storage – Outside Area

2. Waste Oil Tank (500 gal.)
3. Turbine Oil Storage (55 gal. drums)
4. Lube Oil Storage

#### Insignificant Emissions Related to Portable Water System

5. Water Treatment (Chlorine Injection)

#### Insignificant Emissions Related to Fire Protection

6. Diesel Fuel Tank (200 gal.)
7. Diesel Fuel fired emergency generator Firing Less Than 16,000 Gallons Per Year Of Diesel Fuel

#### Insignificant Emissions Related to 250 KW Emergency Generator

9. Diesel Fuel Tank (200 gal.)
10. Diesel Fuel Fired Emergency Generator Firing Less Than 16,000 Gallons Per Year Of Diesel Fuel

**Appendix I-1, Continued.**

Insignificant Emissions Related to Electrical/Control Building

11. Switch Gear Fire Protection
12. Battery Room Fire Protection
13. Control Room Fire Protection
14. Water Lab

Insignificant Emissions Related to Natural Gas Yard

15. Natural Gas Release Valve
16. Natural Gas Metering Station
17. Natural Gas Knockout Tank

Insignificant Emissions Related to ST Turbine Area

18. (2) Lube-oil Reservoirs (mist eliminators)

Insignificant Emissions Related to CT Turbine Area

19. Lube-oil Reservoir (mist eliminator) (700 gal)
20. Turbine/Generator Fire System
21. Natural Gas Release Valve

Insignificant Emissions Related to Boiler Chemical Feed Skid

22. Nalco 356 Tank (1 @ 2755 lb.)
23. Nalco BT 3000 Tank (1 @ 3200 lb.)
24. Conquor 3475 Tank (1 @ 2790 lb.)

Insignificant Emissions Related to Cooling Tower Area

25. Sulfuric Acid Tank (10,000 gal.)
26. Acid Pumps (2)
27. Fresh Water Cooling Towers
28. Chlorine Tank (6,000 gal.- 2 pumps)
29. Nalco 73296 (905 gal)
30. Nalco 73284 (905 gal.)
31. Nalco 9005 (265 gal.)

Insignificant Emissions Related to Auxiliary Boiler

32. Auxiliary Boiler (2.8 MMBtu/hr, NO<sub>x</sub> emissions 2 TPY)

Insignificant Emissions Related to General Site

33. Brazing, Soldering and Welding – Exempt per Rule 62-210.300(3)(a)16., F.A.C.
34. Routine Maintenance
35. Non-halogenated Solvent
36. Lube Oil Storage Tank (9500 gal.) (TK-010)

**Appendix H-1, Permit History**

**Permit History (for tracking purposes):**

<u>E.U. ID No.</u>	<u>Brief Project Description</u>	<u>Permit No.</u>	<u>Effective Date</u>	<u>Expiration Date</u>
-001	Initial PSD permit, Combined Cycle Combustion Turbine	AC53-214903/ PSD-FL-190	5/17/93	1/14/98
-001	Combined Cycle Combustion Turbine	1050223-001-AC	4/29/96	
-001	Combined Cycle Combustion Turbine	1050223-003-AC	1/8/97	
-001	Combined Cycle Combustion Turbine	1050223-005-AC	9/9/97	
-001	Combined Cycle Combustion Turbine	1050223-006-AC	11/19/97	
-001	Combined Cycle Combustion Turbine	1050223-007-AC	1/14/98	
-002	Wastewater Treatment System Spray Dryer Unit w/Baghouse	AC53-230744	6/29/93	1/1/96
-001, -002	Initial Site Certification	PA97-37	06/24/98	N/A
-001, -002	Initial Title V permit	1050223-002-AV	1/1/00	12/31/04
-003	100 Million Btu per hour Package Steam Generation Unit	1050223-009-AC	8/22/00	2/15/02
All	Revision to Include Package Steam Generation Unit	1050223-010-AV	2/24/02	12/31/04
-003	Expiration date extension for project -009	1050223-011-AC	8/10/01	2/15/02
-001	Revision to establish allowable NO <sub>x</sub> limit during start up and shut down, and excess emissions due to combustor tuning.	1050223-013-AC / PSD-FL-190A	???	3/15/05
All	Title V Air Operation Permit Renewal	1050223-012-AV	1/1/05	12/31/09

## **Referenced Attachments**

### **Phase II Acid Rain Application/Compliance Plan**

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

#### **Appendix SS-1, Stack Sampling Facilities (version dated 3/25/96)**

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

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

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

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