

Florida Department of Environmental Protection

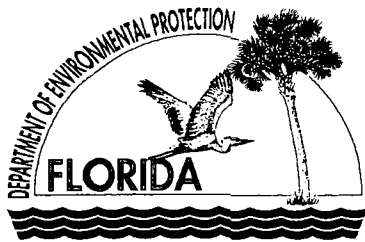
Memorandum

To: Trina Vielhauer, Division of Air Resource Management
Through: Jeff Koerner, Air Permitting and Compliance Section *JK*
From: Bobby Bull, Air Permitting and Compliance Section
Date: July 8, 2011
Subject: Draft Minor Source Air Construction Permit
Project No. 0010001-011-AC/PSD-FL-181B
Progress Energy Florida, Inc.
University of Florida Cogeneration Plant
Facility Permit Revisions

Attached for your review is a draft minor air construction permit package for the University of Florida Cogeneration Plant, which is located in Alachua County at Mowery Road, Building 82 in Gainesville, Florida. Briefly, the draft permit authorizes the revision of the facility's existing combustion turbine's (EU 007) carbon monoxide (CO) short term emission limit, removal of No. 2 fuel oil as an authorized fuel for EU 007, revisions to the duct burner (EU 005) testing and reporting requirements, revisions to testing and reporting requirements for boilers 4 and 5 (EU 002 and EU 003), and minor modifications to previous construction permit language. The draft permit contains the additions and deletions made to original PSD permit and additional revisions made under this permitting action. The attached Technical Evaluation and Preliminary Determination provides a detailed description of the project and the rationale for permit issuance. Day 90 is July 19, 2011 for this permit. I recommend your approval of the attached draft permit package.

Attachments

TLV/jfk/rlb



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

July 8, 2011

Mr. Wilson B. Hicks, Jr.
Plant Manager, University of Florida Cogeneration Plant
Mowery Road, Building 82
Gainesville, FL 32611-2295

Re: Project No. 0010001-011-AC/PSD-FL-181B
Progress Energy Florida, Inc., University of Florida Cogeneration Plant
Minor Air Construction Permit
Facility Permit Revisions

Dear Mr. Hicks:

On September 13, 2010, you submitted an application requesting a revised combustion turbine carbon monoxide limit, removal of the duct burner testing requirements, and minor modifications to existing construction permit language. In addition, the Department made revisions to the reporting requirements for the duct burner, testing and reporting requirements for boilers 4 and 5, and removal of No. 2 fuel oil as an authorized fuel for the combustion turbine. The draft permit contains the additions and deletions made to original PSD permit and additional revisions made under this permitting action. This facility is located in Alachua County at Mowery Road, Building 82 in Gainesville, Florida. Enclosed are the following documents: the Technical Evaluation and Preliminary Determination; the Draft Permit and Appendices; the Written Notice of Intent to Issue Air Permit; and the Public Notice of Intent to Issue Air Permit. The Public Notice of Intent to Issue Air Permit is the actual notice that you must have published in the legal advertisement section of a newspaper of general circulation in the area affected by this project. If you have any questions, please contact the project engineer, Bobby Bull, P.E., at 850/717-9111.

Sincerely,

Jeffery F. Koerner, Program Administrator
Air Permitting and Compliance Section
Division of Air Resource Management

Enclosures

JFK/rlb

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

*In the Matter of an
Application for Air Permit by:*

Progress Energy Florida, Inc.
Plant Manager, University of Florida Cogeneration Plant
Mowery Road, Building 82
Gainesville, FL 32611-2295

Project No. 0010001-011-AC
PSD-FL-181B
Alachua County, Florida

Authorized Representative:
Wilson B. Hicks, Jr., Plant Manager

University of Florida Cogeneration Plant
Facility Permit Revisions

Facility Location: Progress Energy Florida, Inc. operates the existing University of Florida Cogeneration Plant, which is located in Alachua County at Mowery Road, Building 82 in Gainesville, Florida.

Project: The applicant proposes a revised combustion turbine carbon monoxide limit, removal of the duct burner testing requirements, and minor modifications to existing construction permit language. In addition, the Department made revisions to the reporting requirements for the duct burner, testing and reporting requirements for boilers 4 and 5, and removal of No. 2 fuel oil as an authorized fuel for the combustion turbine. The draft permit contains the additions and deletions made to original PSD permit and additional revisions made under this permitting action. This project does not trigger preconstruction review under Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality; however, it is a revision of the emission limits established in a PSD permit. Details of the project are provided in the application and the enclosed Technical Evaluation and Preliminary Determination.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-212 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 perform the proposed work. The Florida Department of Environmental Protection's Air Permitting and Compliance Section is the Permitting Authority responsible for making a permit determination for this project. The Air Permitting and Compliance Section's physical address is 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301 and the mailing address is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Air Permitting and Compliance Section's phone number is 850/717-9000.

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 address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, 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 or phone number listed above.

Notice of Intent to Issue Permit: The Permitting Authority gives notice of its intent to issue an air permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the proposed equipment 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, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Public Notice: Pursuant to Section 403.815, F.S. and Rules 62-110.106 and 62-210.350, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Permit (Public Notice). The Public 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 by this project. The newspaper

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

used must meet the requirements of Sections 50.011 and 50.031, F.S. in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Permitting Authority at above address or phone number. Pursuant to Rule 62-110.106(5) and (9), F.A.C., the applicant shall provide proof of publication to the Permitting Authority at the above address within 7 days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

Comments: The Permitting Authority will accept written comments concerning the proposed Draft Permit for a period of 30 days from the date of publication of the Public Notice. Written comments must be received by the Permitting Authority by close of business (5:00 p.m.) on or before the end of the 30-day period. If written comments received result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit 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 (Telephone: 850/245-2241). Petitions filed by the applicant or any of the parties listed below must be filed within 14 days of receipt of this Written Notice of Intent to Issue Air Permit. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the attached Public Notice or within 14 days of receipt of this Written Notice of Intent to Issue Air Permit, 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 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 (in a proceeding initiated by another party) 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 when and how each petitioner received notice of the agency action or proposed decision; (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 including an explanation of how the alleged facts relate to the specific rules or statutes; 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.

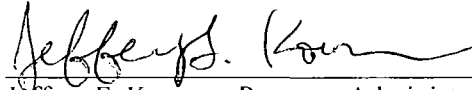
Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Written Notice of Intent to Issue Air Permit. Persons whose substantial interests 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

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMIT

proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available in this proceeding.

Executed in Tallahassee, Florida.



Jeffery F. Koerner, Program Administrator
Air Permitting and Compliance Section
Division of Air Resource Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Written Notice of Intent to Issue Air Permit package (including the Written Notice of Intent to Issue Air Permit, the Public Notice of Intent to Issue Air Permit, the Technical Evaluation and Preliminary Determination and the Draft Permit) was sent by electronic mail (or a link to these documents made available electronically on a publicly accessible server) with received receipt requested before the close of business on 7-8-11 to the persons listed below.

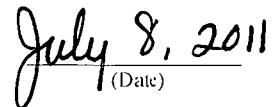
Wilson Hicks, Progress Energy Florida, Inc. (wilson.hicks@pgnmail.com)
Chris Bradley, Progress Energy Florida, Inc. (chris.bradley@pgnmail.com)
Scott Osbourn, Golder Associates (scott_osbourn@golder.com)
Christopher Kirts, Northeast District Office (christopher.kirts@dep.state.fl.us)
Kathleen Forney, EPA Region 4 (forney.kathleen@epa.gov)
Lynn Scarce, DEP APC Reading File (lynn.scarce@dep.state.fl.us)

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)



(Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMIT

Florida Department of Environmental Protection
Division of Air Resource Management
Draft Minor Source Air Construction Permit
Project No. 0010001-011-AC/PSD-FL-181B
Progress Energy Florida, Inc., University of Florida Cogeneration Plant
Alachua County, Florida

Applicant: The applicant for this project is Progress Energy Florida, Inc. The applicant's authorized representative and mailing address is: Wilson Hicks, Plant Manager, Progress Energy Florida, Inc., University of Florida Cogeneration Plant, Mowery Road, Building 82, Gainesville, FL and 32611-2295.

Facility Location: Progress Energy Florida, Inc. operates the existing University of Florida Cogeneration Plant, which is located in Alachua County at Mowery Road, Building 82 in Gainesville, Florida.

Project: The applicant is requesting a revised combustion turbine carbon monoxide limit, removal of the duct burner testing requirements, and minor modifications to existing construction permit language. Additionally, the Department made revisions to the reporting requirements for the duct burner, testing and reporting requirements for boilers 4 and 5, and removal of No. 2 fuel oil as an authorized fuel for the combustion turbine. The draft permit contains the additions and deletions made to original PSD permit and additional revisions made under this permitting action. This project does not trigger preconstruction review under Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality; however, it is a revision of the emission limits established in a PSD permit.

Permitting Authority: Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210 and 62-212 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 perform the proposed work. The Florida Department of Environmental Protection's Air Permitting and Compliance Section is the Permitting Authority responsible for making a permit determination for this project. The Air Permitting and Compliance Section's physical address is 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301 and the mailing address is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Air Permitting and Compliance Section's phone number is 850/717-9000.

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 physical address indicated above for the Permitting Authority. The complete project file includes the Draft Permit, the Technical Evaluation and Preliminary Determination, the application and information submitted by the applicant (exclusive of confidential records under Section 403.111, F.S.). Interested persons may contact the Permitting Authority's project engineer for additional information at the address and phone number listed above. In addition, electronic copies of these documents are available on the following web site: <http://www.dep.state.fl.us/air/emission/apds/default.asp>.

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its intent to issue an air construction permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of proposed equipment 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, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a Final Permit in accordance with the conditions of the proposed Draft Permit unless a timely petition for an administrative hearing is filed under Sections 120.569 and 120.57, F.S. or unless public comment received in accordance with this notice results in a different decision or a significant change of terms or conditions.

Comments: The Permitting Authority will accept written comments concerning the proposed Draft Permit for a period of 30 days from the date of publication of this Public Notice. Written comments must be received by the Permitting Authority by close of business (5:00 p.m.) on or before the end of the 30-day period. If written comments received result in a significant change to the Draft Permit, the Permitting Authority shall revise the Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for

(Public Notice to be Published in the Newspaper)

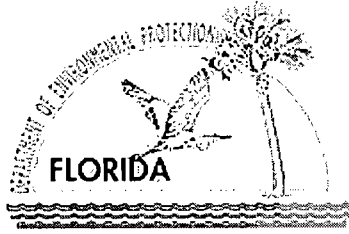
public inspection.

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 (Telephone: 850/245-2241). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within 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 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 (in a proceeding initiated by another party) 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 when and how the petitioner received notice of the agency action or proposed decision; (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 including an explanation of how the alleged facts relate to the specific rules or statutes; 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 to Issue Air Permit. 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.



**TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION**

APPLICANT

Progress Energy Florida, Inc.
Mowery Road, Building 82
Gainesville, FL 32611-2295

University of Florida Cogeneration Plant
Facility ID No. 0010001

PROJECT

Project No. 0010001-011-AC
Application for Minor Source Air Construction Permit
Facility Permit Revisions

COUNTY

Alachua County, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Division of Air Resource Management
Air Permitting and Compliance Section
2600 Blair Stone Road, MS #5505
Tallahassee, FL 32399-2400

July 8, 2011

1. GENERAL PROJECT INFORMATION

Air Pollution Regulations

Projects at stationary sources with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following applicable chapters: 62-4 (Permits); 62-204 (Air Pollution Control – General Provisions); 62-210 (Stationary Sources – General Requirements); 62-212 (Stationary Sources – Preconstruction Review); 62-213 (Operation Permits for Major Sources of Air Pollution); 62-296 (Stationary Sources – Emission Standards); and 62-297 (Stationary Sources – Emissions Monitoring). Specifically, air construction permits are required pursuant to Rules 62-4, 62-210 and 62-212, F.A.C.

In addition, the U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial categories. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department adopts these federal regulations on a quarterly basis in Rule 62-204.800, F.A.C.

Glossary of Common Terms

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of this permit.

Facility Description and Location

University of Florida Cogeneration Plant is an existing power plant, which is categorized under Standard Industrial Classification Code No. 4911. The existing University of Florida Cogeneration Plant is located in Alachua County on Mowery Road at Building 82, University of Florida in Gainesville, Florida. The UTM coordinates of the existing facility are Zone 17, 369.4 kilometers East, and 3279.3 kilometers North. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to state and federal Ambient Air Quality Standards (AAQS).

Facility Regulatory Categories

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility has units subject to the acid rain provisions of the Clean Air Act.
- The facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Project Description

In 1994, the applicant was issued air construction permit PSD-FL-181, which authorized the installation of a 43 MW General Electric LM6000 PA combustion turbine and duct burner system with heat recovery steam generator (HRSG) and the removal of three existing boilers. With the incorporation of the PA unit, the remaining two boilers would be used as backup steam generators. Net decreases taken by the removal of the three boilers and reduced operation of the remaining two boilers were taken to avoid a BACT review for nitrogen oxides (NO_x). The project netted out of triggering any PSD review for all other pollutants except for carbon monoxide (CO). The CO short term emissions limit established potential emissions below the PSD significant emissions rate. The permit also established annual CO and NO_x emission limits on the combustion turbine and duct burner. The emissions from the remaining boilers were included under an annual facility-wide NO_x cap. No CO limit, short term or annual, was established for the boilers.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

In 2000, the applicant was issued air construction permit 0010001-003-AC to upgrade the existing LM6000 PA with a newer GE model 48 MW LM6000 PC Sprint unit. To avoid PSD review the BACT for CO was re-established for the short term CO concentration limit, and the applicant took further annual NO_x and CO emission caps on the new combustion turbine. During this project the permittee had the option to install equipment to burn fuel oil in the combustion turbine; however, the oil firing equipment was never installed.

Prior to incorporating the conditions of air construction permit 0010001-003-AC into the Title V permit, the applicant requested a new, lower short term concentration limit for CO for the combustion turbine to "provide operation flexibility." This request was recognized under air construction permits 0010001-004-AC and 0010001-006-AC (project 006 was an amendment to project 004). However, the permittee was authorized to operate both the combustion turbine and the duct burner 8,760 hours, thus negating any basis using hours of operation as permit limiting condition. Air construction permits 0010001-006-AC and 0010001-003-AC were incorporated into the facility's Title V permit as part of permit 0010001-005-AV.

For this current project under review, the permittee requested the combustion turbine's CO limit revert back to the original CO limit under air construction permit 0010001-003-AC. The applicant has also requested the CO testing requirements for the duct burner be removed from the permit due to safety concerns while testing at high capacity. In addition, the applicant has requested revisions to other permit language which will be addressed in this document.

Processing Schedule

September 13, 2010	Received the application for a minor source air pollution construction permit.
October 13, 2011	Requested additional information.
April 20, 2011	Received additional information; application complete.

2. PSD APPLICABILITY

General PSD Applicability

For areas currently in attainment with the state and federal AAQS or areas otherwise designated as unclassifiable, the Department regulates major stationary sources of air pollution in accordance with Florida's PSD preconstruction review program as defined in Rule 62-212.400, F.A.C. Under preconstruction review, the Department first must determine if a project is subject to the PSD requirements ("PSD applicability review") and, if so, must conduct a PSD preconstruction review. A PSD applicability review is required for projects at new and existing major stationary sources. In addition, proposed projects at existing minor sources are subject to a PSD applicability review to determine whether potential emissions *from the proposed project itself* will exceed the PSD major stationary source thresholds. A facility is considered a major stationary source with respect to PSD if it emits or has the potential to emit:

- 250 tons per year or more of any regulated air pollutant; or
- 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the following 28 PSD-major facility categories: fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input, coal cleaning plants (with thermal dryers), Kraft pulp mills, portland cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants, primary copper smelters, municipal incinerators capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production plants, chemical process plants, fossil fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input, petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels, taconite ore processing plants, glass fiber processing plants and charcoal production plants.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Once it is determined that a project is subject to PSD preconstruction review, the project emissions are compared to the "significant emission rates" defined in Rule 62-210.200, F.A.C. for the following pollutants: CO; NO_x; sulfur dioxide (SO₂); particulate matter (PM); particulate matter with a mean particle diameter of 10 microns or less (PM₁₀); volatile organic compounds (VOC); lead (Pb); fluorides (Fl); sulfuric acid mist (SAM); hydrogen sulfide (H₂S); total reduced sulfur (TRS), including H₂S; reduced sulfur compounds, including H₂S; municipal waste combustor organics measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans; municipal waste combustor metals measured as particulate matter; municipal waste combustor acid gases measured as SO₂ and hydrogen chloride (HCl); municipal solid waste landfills emissions measured as non-methane organic compounds (NMOC); and mercury (Hg). In addition, significant emissions rate also means any emissions rate or any net emissions increase associated with a major stationary source or major modification which would construct within 10 kilometers of a Class I area and have an impact on such area equal to or greater than 1 µg/m³, 24-hour average.

If the potential emission exceeds the defined significant emissions rate of a PSD pollutant, the project is considered "significant" for the pollutant and the applicant must employ the Best Available Control Technology (BACT) to minimize the emissions and evaluate the air quality impacts. Although a facility or project may be *major* with respect to PSD for only one regulated pollutant, it may be required to install BACT controls for several "significant" regulated pollutants.

PSD Applicability for Project

The applicant has requested an increase in the short term CO concentration limit with no increases to the combustion turbine's annual CO emission cap of 127.5 tons per year. There are no anticipated emissions increases or violations of the turbine's CO caps.

The applicant does not anticipate any new emissions from the firing of the duct burner. The applicant provided operational data showing hours of operation, heat input levels, and information from previous testing as well as an engineering report to detail the issues with testing as the basis for not conducting a stack test with the duct burner operating.

No other emission limit revisions were requested and the requested language revisions will not result in any emission limit revisions. The permittee is not modifying or increasing capacity at any of the emission units and there are no expected emission increases at the facility.

Additional revisions have been incorporated by the Department and will be addressed in the Department's review of the application. The project is not expected to result in actual CO emissions increases of 100 tons per year or more. Therefore, the project is not subject to PSD preconstruction review. However, it is a revision to a PSD permit.

3. APPLICATION REVIEW

The permittee currently operates a General Electric LM6000 PC Sprint combustion turbine, a duct burner system with HRSG, and two back up steam boilers. The permittee proposes to increase the combustion turbine's short term CO concentration limit while keeping the annual emissions limit, remove testing requirements for the duct burner due to safety and operational issues, and minor revisions to permit language in air construction permits which have been incorporated into the current Title V permit. The draft permit contains the additions and deletions made to original permit and additional revisions made under this permitting action.

Short-Term CO Concentration Limit

The Department has reviewed the permitting history of the CO limits since the permittee installed the first combustion turbine under PSD-FL-181.

PSD-FL-181: The GE LM6000 PA turbine was added during this permitting process. To avoid triggering the significant emission rates for NO_x, a netting analysis was used based on a CO limit of 42 ppmvd for natural gas and 75 ppmvd for fuel oil (166.1 tons per year and 7.7 tons per year, respectively). These annual limits were

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

taken to avoid PSD review under this permitting action. A CO annual emission cap was taken for the duct burner at 36.9 tons per year (natural gas only) as part of the effort to keep emissions below the significant emissions rate. The duct burner limit was based on the potential emissions of the duct burner operating for 2,608 hours (or 30%) of the year.

0010001-003-AC: During the permitting of the existing GE LM6000 PC Sprint unit (EU 003), the permittee requested a CO limit of 36 ppmvd and to reduce the annual CO emission cap for natural gas from 166.1 tons per year to 127.5 tons per year to avoid PSD review. The limits for the duct burner remained unchanged with this permitting effort. This permit also gave the permittee the option to install equipment to fire fuel oil.

0010001-006-AC: The permittee requested and was granted the lower short term limit of 31.6 ppmvd which they believed at the time would allow more flexibility in the hours of operation with the capability of remaining under the CO cap. This permit also allowed continuous operation of the turbine which was inconsistent with adjusting short term emission limits and hours of operation as measures to stay under the annual emissions limit. The continuous operating hours at 8,760 hours was incorporated into the facility's Title V permit and this condition currently is the basis for operation for the combustion turbine and duct burner.

0010001-005-AV: The new combustion turbine was constructed and the conditions of air construction permits 0010001-003-AC and 0010001-006-AC were incorporated into the Title V permit. The permittee did not install the equipment necessary to fire fuel oil in the combustion turbine. Since the permit has expired the unit lost the ability to fire fuel oil without gaining further permitting authorization from the Department. However, the emission limits for fuel oil combustion were incorporated into the Title V permit.

The Department believes the short-term CO emission limit permitted in air construction permit 0010001-003-AC is the appropriate limit for the combustion turbine based upon the original BACT analysis. The emission cap was taken to avoid triggering BACT for the new combustion turbine. With the annual emission cap in place, the hours of operation should not be limited and it will be the responsibility of the permittee to remain within both the short-term concentration limit and the annual ton per year emission cap.

Removal of No. 2 Fuel Oil as an Authorized Fuel for the Combustion Turbine

As permitted in 0010001-003-AC, the permittee was given the option to fire No. 2 fuel oil in the combustion turbine. Since this equipment was not installed, the Department will remove all limits and caps referencing fuel oil combustion in the combustion turbine. When the annual NO_x emissions limit was lowered for the combustion turbine from 142.7 to 141 tons per year, the facility emissions limit was not reduced by 1.7 tons per year. Removal of the oil firing emissions will reduce the facility NO_x cap by 7.3 tons per year. This will not affect the 141 tons per year limit for natural gas combustion in the combustion turbine. With removal of fuel oil capacity of 7.3 tons per year and the additional 1.7 tons per year from the 0010001-003-AC project, the new facility-wide NO_x annual emissions are 185.3 tons per year which includes the backup boilers and miscellaneous support equipment.

The allotted 7.7 tons per year for CO emissions from oil firing are removed from the permit. This does not affect the 127.5 tons per year limit on natural gas combustion.

Duct Burner

The permittee currently operates a 188 million British thermal units per hour (MMBtu/hr) duct burner with HRSG (EU 005) in association with the combustion turbine. The unit was installed along with the original combustion turbine EU 001 under PSD-FL-181 and currently operates in conjunction with the existing combustion turbine EU 007. Established under PSD-FL-181, the duct burner/HRSG has an annual CO emission limit of 36.9 tons per year based upon its potential emissions (0.15 lb/MMBtu) and burning no more than 519.5 million cubic feet of natural gas per year.

The primary concern expressed by the applicant is the safety of personnel when stack testing the duct burner. The last significant test performed on the duct burner was in October 2001. During the test, the duct burner reached a capacity of 109 MMBtu/hr. The applicant has indicated the duct burner has not operated at this heat input level

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

since the 2001 test. Below is a description of the testing and venting conditions for the test as provided by the applicant.

As an integral part of the refurbishment project on Boiler Nos. 4 and 5, a vent was added for boiler performance testing to ensure performance at capacity after refurbishment. As you recall, Boiler Nos. 4 and 5 were refurbished for backup after the cogen facility was built. A temporary steam vent system was installed on the cogen during the start-up period for the purposes of conducting steam blows; however, after commercial operation of the cogen unit, it was dismantled. As for the cogen's heat recovery steam generator (HRSG), there has never been a steam vent system for the specific purpose of testing. In addition, the current steam vent is inadequate to accommodate the steam generated while operating the duct burner without sufficient steam demand. The Heat Plant (i.e., Boiler Nos. 4 and 5) vent was intended to be temporary as part of that project. When it was determined that testing was required while firing the duct burner, the Heat Plant vent system was used; however, this steam vent system was never intended or designed to handle the steam generated when there is insufficient steam demand and the duct burner is fully fired. As a result, the duct burner was tested at the maximum duct burner heat input rate that the vent system could safely accommodate. Recently, a safety evaluation was performed on the steam vent system and, in addition to not meeting code, the system was deemed unsafe; as a result it has been dismantled.

Additionally the following information provided by the applicant, from the engineering report provided in response to the Department's first request for additional information, indicated the operational range for the duct burner is well below its actual rating.

Firing at the full capacity of the duct burner is not possible with the current arrangement. Duct fired testing can be consistently performed at 30 mmbtu/hr in the summer or 70 mmbtu/hr in the winter. Lower firing level performance will be representative of higher firing levels with the operating arrangement of the duct burners.

The units have also operated within the heat input limits and natural gas consumption limits. The table below illustrates the heat input levels the duct burner has operated for the calendar years 2007 through 2009.

Percentage of Hours Operated for Calendar Years 2007 through 2009	Range of Hourly Average Heat Input
73.24	0 MMBtu/hr
0.02	0.1-20.0 MMBtu/hr
20.08	20.1-30.0 MMBtu/hr
2.58	30.1-40.0 MMBtu/hr
3.02	40.1-60.0 MMBtu/hr
0.92	60.1-80.0 MMBtu/hr
0.14	80.1-100.0 MMBtu/hr
100.00	Total Percentage of Hours

The Department believes it is reasonable for the applicant to report emissions based on natural gas consumption. However, with no recent testing data, there is no information to provide an accurate emission factor for each of the heat input ranges. The Department will allow the applicant to report emissions based upon the potential emission factor of 0.15 MMBtu/hr and the lower heating value of the fuel as reported to the Department at 950 Btu/cubic foot. The permittee is authorized to fire natural gas up to 197,700 cubic feet per hour and 519.5 million cubic feet per year.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Boilers 4 and 5

The permittee currently operates a 69.6 MMBtu/hr boiler and a 168 MMBtu/hr boiler as back steam generating units to the combustion turbine. The boilers have the capacity to fire natural gas and No. 2 fuel oil. Both units report annual emissions based upon heat input, hours of operation, and an emission factor for NO_x. This emission factor was established in October 2000. Based upon the PSD-FL-181 permit, the boilers were required to be tested annually. However, when the initial Title V permit (0010001-001-AV) was issued, the permit language indicated the emission factor would be established during a one time test and be the basis for annual calculations. This revision was never reflected in any construction permit to modify the PSD permit. The permit no. 0010001-001-AV cites only state rules, but nothing about the PSD-FL-181 permit. In later Title V permits, the PSD permits PSD-FL-181 and PSD-FL-181A were still cited in these permits.

Since these units are only used as backups and are being operated in standby mode at low heat input levels, it is reasonable to not test the units annually. The emission factor should reflect a more precise measurement of the boiler's current performance. The Department will require the boilers' emission factors be re-established prior to permit renewal for NO_x emissions for both natural gas and fuel oil.

In researching the permitting history of the facility, boilers 4 and 5 were part of the netting analysis under PSD-FL-181 in which the original combustion turbine was proposed, boilers 1, 2, and 3 were shut down, and boilers 4 and 5 showed reduced operations to avoid triggering BACT. As part of the netting analysis to demonstrate reduced operation, boilers 4 and 5 combined would have NO_x emissions of 19.7 tons per year. Operational flexibility was built into the PSD permit to allow the boilers to operate if the combustion turbine was not operating and the boilers were needed to generate steam. The controlling condition for the additional boiler operation would be the facility-wide NO_x cap of 194.3 tons per year established to avoid BACT. This condition has remained constant throughout the facility's permitting history.

Currently, the boilers operate at low heat input levels to be ready for steam production in case of the combustion turbine going down. This standby mode is reasonable for a quick response to any issues with the combustion turbine's operation status. In standby mode, the boilers are emitting NO_x, but levels from recent annual operating reports show the emissions to be well under 19.7 tons per year. To provide additional assurance the facility wide NO_x emission limit will not be exceeded, the emissions from both boilers should not exceed 19.7 tons per year while operating in standby mode. Best operating practices should be adhered to avoid exceeding this value. Any values over 19.7 tons per year does not constitute a violation, but a report explaining the exceedence will be required from the facility to the Compliance Authority. Emissions from the boilers are also included in the new facility-wide NO_x limit of 185.3 tons per year.

Additional Revisions

The applicant also requested minor revisions to permit conditions through the air construction permit process.

- The applicant requested the fuel consumption rates monthly report be submitted to the Compliance Authority on the fifteenth day of each month instead of the current requirement to report on the fifth day of each month. This change was made.
- Language in the permit will clarify that the permittee will have the option to use an approved laboratory to determine sulfur content of its natural gas.
- The period in which excess emissions are allowed is clarified to be consistent with the NO_x continuous emissions monitoring system (CEMS) reporting for the combustion turbine.
- Other changes to permit language was requested, but these changes are clarifying existing Title V permit language. These changes were not made.

4. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. Bobby Bull, P.E. is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at the Department's Air Permitting and Compliance Section, 2600 Blair Stone Road, MS #5505, Tallahassee, FL, 32399-2400. The Air Permitting and Compliance Section's phone number is 850/717-9000.

DRAFT PERMIT

Sent by Electronic Mail – Received Receipt Requested

PERMITTEE

Progress Energy Florida, Inc.
University of Florida Cogeneration Plant
Mowery Road, Building 82
Gainesville, FL 32611-2295

Air Permit No. 0010001-011-AC
PSD-FL-181B
Permit Expires: July 31, 2012

Authorized Representative:
Wilson B. Hicks, Jr., Plant Manager

University of Florida Cogeneration Plant
Air Construction Permit
Revised Facility Permit

This is the final air construction permit, which authorizes several revisions to the original air construction permit for the existing combined cycle combustion turbine and backup Boilers 4 and 5 including, but not limited to: revision of the short-term carbon monoxide (CO) emission limit, removal of No. 2 fuel oil as an authorized fuel for the combustion turbine and changes to the testing and reporting requirements. ***No new construction is authorized by the permit.*** The University of Florida Cogeneration Plant is an existing power plant (Standard Industrial Classification No. 4911). The facility is located in Alachua County at Mowery Road, Building 82 in Gainesville, Florida. The UTM coordinates are Zone 17, 369.4 kilometers East, and 3279.3 kilometers North.

This final permit is organized by the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions); and Section 4 (Appendices).

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 conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is a revision of the original air construction permit that was subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida

(DRAFT)

(Signature)

(Date)

(Printed Name of Above Designee)

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination and Final Permit) was sent by electronic mail (or a link to these documents made available electronically on a publicly accessible server) with received receipt requested before the close of business on _____ to the persons listed below.

- Mr. Wilson Hicks, Progress Energy Florida, Inc. (wilson.hicks@pgnmail.com)
- Mr. Chris Bradley, Progress Energy Florida, Inc. (chris.bradley@pgnmail.com)
- Mr. Scott Osbourn, Golder Associates (scott_osbourn@golder.com)
- Mr. Christopher Kirts, Northeast District Office (christopher.kirts@dep.state.fl.us)
- Ms. Kathleen Forney, EPA Region 4 (forney.kathleen@epa.gov)
- Ms. Lynn Searce, DEP APC Reading File (lynn.searce@dep.state.fl.us)

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.

(DRAFT)

(Clerk)

(Date)

SECTION 1. GENERAL INFORMATION (DRAFT)

FACILITY AND PROJECT DESCRIPTION

Existing Facility

This facility consists of one nominal 48 megawatt (MW) General Electric Model No. LM6000-PC-ESPRINT combustion turbine (CT), one heat recovery steam generator (HRSG) with duct burner (DB) and two backup steam boilers. The CT uses spray inter-cooling to maximize power generation and reduce the need for supplemental firing in the duct burner to meet steam and power requirements. Emissions from the CT and DB are vented through a common stack. Emissions of nitrogen oxides (NO_x) are controlled with steam injection with compliance demonstrated by data collected from a continuous emissions monitoring system (CEMS). The steam boilers have separate exhaust stacks and are used only as backup sources of steam when the CT/HRSG/DB system is not available.

Facility ID No. 0010001	
ID No.	Emission Unit Description
002	No. 4 Steam Boiler
003	No. 5 Steam Boiler
005	Heat Recovery Steam Generator with Duct Burner System
007	General Electric Model No. LM6000-PC-ESPRINT Combustion Turbine

Proposed Project

The permit revises the original air construction permit for the existing combined cycle CT/HRSG/DB system and backup steam boilers, which includes, but is not limited to, the following: revised short-term CO emission limit, removal of No. 2 fuel oil as an authorized fuel for the combustion turbine, revisions to the testing and reporting requirements for the duct burner and backup steam boilers. This permit brings the original permit up to date with all previous modifications and amendments including the current project. This permit supersedes all other air construction permits for these units.

FACILITY REGULATORY CLASSIFICATION

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility has units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.

SECTION 2. ADMINISTRATIVE REQUIREMENTS (DRAFT)

1. Permitting Authority: The permitting authority for this project is the Air Permitting and Compliance Section, Division of Air Resource Management, Florida Department of Environmental Protection (Department). The Air Permitting and Compliance Section's mailing address is 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. All documents related to applications for permits to operate an emissions unit shall be submitted to the Northeast District (as applicable) at: 7825 Baymeadows Way, Suite 200B, Jacksonville, FL 32256-7590. The Northeast District phone number is (904) 256-1700.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Northeast District at: 7825 Baymeadows Way, Suite 200B, Jacksonville, FL 32256-7590. The Northeast District phone number is (904) 256-1700.
3. Appendices: The following Appendices are attached as part of this permit:
 - a. Appendix A. Citation Formats and Glossary of Common Terms;
 - b. Appendix B. General Conditions;
 - c. Appendix C. Common Conditions; and
 - d. Appendix D. Common Testing Requirements.
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.
5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Modifications: The permittee shall notify the Compliance Authority upon commencement of construction. No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
7. Source Obligation:
 - a. At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.
 - b. At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

SECTION 2. ADMINISTRATIVE REQUIREMENTS (DRAFT)

[Rule 62-212.400(12), F.A.C.]

8. Application for Title V Permit: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V air operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V air operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the appropriate Permitting Authority with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]
9. Actual Emissions Reporting: This permit is based on an analysis that compared baseline actual emissions with projected actual emissions and avoided the requirements of subsection 62-212.400(4) through (12), F.A.C. for several pollutants. Therefore, pursuant to Rule 62-212.300(1)(e), F.A.C., the permittee is subject to the following monitoring, reporting and recordkeeping provisions.
 - a. The permittee shall monitor the emissions of any PSD pollutant that the Department identifies could increase as a result of the construction or modification and that is emitted by any emissions unit that could be affected; and, using the most reliable information available, calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change. Emissions shall be computed in accordance with the provisions in Rule 62-210.370, F.A.C., which are provided in Appendix C of this permit.
 - b. The permittee shall report to the Department within 60 days after the end of each calendar year during the 5-year period setting out the unit's annual emissions during the calendar year that preceded submission of the report. The report shall contain the following:
 - (1) The name, address and telephone number of the owner or operator of the major stationary source;
 - (2) The annual emissions as calculated pursuant to the provisions of 62-210.370, F.A.C., which are provided in Appendix C of this permit;
 - (3) If the emissions differ from the preconstruction projection, an explanation as to why there is a difference; and
 - (4) Any other information that the owner or operator wishes to include in the report.
 - c. The information required to be documented and maintained pursuant to subparagraphs 62-212.300(1)(e)1 and 2, F.A.C., shall be submitted to the Department, which shall make it available for review to the general public.

For this project, the Department requires the annual reporting of actual NO_x and CO emissions for the following units: HRSG/DB (EU-005) and CT (EU-007). Additionally, the Department requires the annual reporting of actual NO_x emissions for the Steam boilers (EU-002 and EU-003).

[Application 0010001-011-AC; and Rules 62-212.300(1)(e) and 62-210.370, F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

A. Emissions Units 002, 003, 005 and 007

This section of the permit addresses the following emissions units.

ID No.	Emission Unit Description
002	No. 4 Steam Boiler
003	No. 5 Steam Boiler
005	Heat Recovery Steam Generator with Duct Burner System
007	General Electric Model No. LM6000-PC-ESPRINT Combustion Turbine

The steam boilers (EU 002 and 003) are used only as back-up sources of steam. Each boiler has its own exhaust stack. The maximum heat input rate for the No. 4 steam boiler is 69.6 million British thermal units per hour (MMBtu/hr). The maximum heat input is based on permitted firing limits of 68,000 cubic feet (cf) of natural gas per hour and 444 gallons per hour of No. 2 fuel oil. The maximum heat input rate for the No. 5 steam boiler is 168 MMBtu/hr. The maximum heat input is based on permit firing limits of 164,000 cf of natural gas per hour and 1,067 gallons per hour of No. 2 fuel oil. The steam boilers began commercial service in January 1976. No. 4 steam boiler has a stack height of 82 feet, exit diameter of 5 feet, exit temperature of 350°F and actual volumetric flow rate of 13,500 actual cubic feet per minute (acfm). No. 5 steam boiler has a stack height of 82 feet, exit diameter of 6 feet, exit temperature of 400°F and actual volumetric flow rate of 56,250 acfm. The emissions units are regulated under this permit and Rule 62-296.406, F.A.C., Fossil Fuel Steam Generators with Less than 250 MMBtu per Hour Heat Input.

Emissions units 007 and 005 are a combined cycle combustion turbine system with a duct burner-fired heat recovery steam generator (HRSG/DB). The CT has a nominal generator rating of 48 megawatts (MW) and is fired with natural gas. The CT utilizes spray intercooling to maximize throughput, thus reducing supplemental firing in the duct burner for meeting steam and power requirements. The NO_x emissions are controlled with steam injection. The HRSG is equipped with a natural gas-fired duct burner. The DB is equipped with low-NO_x burners to control NO_x emissions. The CT and the DB exhaust through the same HRSG and common stack. The common stack has a height of 93 feet, exit diameter of 9.8 feet, exit temperature of 257°F, and actual volumetric flow rate of 365,700 acfm, based on CT only @ 59 °F, 60% relative humidity at inlet, maximum dry standard flow rate of 216,956 dscfm, and exit velocity of 80.8 feet per second. The 48 MW CT began commercial service on September 24, 2002 (replacing the original 43 MW CT that was installed in 1994). The HRSG/DB began commercial service January 31, 1994.

1. State and Federal Regulations. ~~Unless otherwise indicated, the construction and operation of the subject cogeneration facility shall be in accordance with the capacities and specifications stated in the application.~~
 - a. *Regulations:* Unless otherwise indicated in this permit, the construction and operation of the subject emission units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-17, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296 and 62-297; and the applicable requirements of the Code of Federal Regulations Section 40, Parts 52, 60, 72, 73 and 75.
 - b. *Applicable Requirements:* Issuance of a permit does not relieve the owner or operator of an emissions unit from complying with any applicable requirements, any emission limiting standards or other requirements of the air pollution rules of the Department or any other such requirements under federal, state, or local law, notwithstanding that these applicable requirements are not explicitly stated in this permit. In cases where there is an ambiguity or conflict in the specific conditions of this permit with any of the above-mentioned regulations, the more stringent local, state, or federal requirement applies. [Rules 62-204.800 and Rules 62-210.300 and 62-4.070 (3) F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

A. Emissions Units 002, 003, 005 and 007

c. *NSPS Requirements:* The combustion turbine (EU 007) shall comply with the applicable provisions of 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted by reference in Rule 62-204.800(7)(b), F.A.C. The duct burner (EU 005) shall comply with the applicable provisions of 40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, adopted by reference in Rule 62-204.800(7)(b), F.A.C. The Emissions units subject to a specific NSPS subpart shall also comply with the applicable requirements of 40 CFR 60, Subpart A, General Provisions including:

- 40CFR60.7 Notification and Record Keeping
- 40CFR60.8 Performance Tests
- 40CFR60.11 Compliance with Standards and Maintenance Requirements
- 40CFR60.12 Circumvention
- 40CFR60.13 Monitoring Requirements
- 40CFR60.19 General Notification and Reporting requirements

2. Emissions from this facility shall not exceed the limits listed below:

Pollutant	Source	Fuel	Basis of Limit	lb/hr	tons/yr
NO _x	Turbine	Gas	EBM*: 25 ppmvd @ 15% O ₂	35.0	142.7
	Turbine	Oil	EBM*: 42 ppmvd @ 15% O ₂	66.3	7.3
	Duct Burner	Gas	EBM*: 0.1 lb/MMBtu	18.7	24.6
SO ₂	Turbine	Oil	BACT: 0.5% Sulfur Max	-	-
	Boiler 4	Oil	BACT: 0.5% Sulfur Max	-	-
	Boiler 5	Oil	BACT: 0.5% Sulfur Max	-	-
VE	Turbine	Gas/Oil	Equivalent of mass EBM*	10%/20% opacity**	
	Duct Burner	Gas	Equivalent of mass EBM*	10% opacity	
	Boiler 4	Gas/Oil	Equivalent of mass EBM*	10%/20% opacity**	
	Boiler 5	Gas/Oil	Equivalent of mass EBM*	10%/20% opacity**	
CO	Turbine	Gas	BACT 42 ppmvd	38.8	158.0
	Turbine	Oil	EBA***: 75 ppmvd	70.5	7.7
	Duct Burner	Gas	BACT: 0.15 lb/MMBtu****	28.1	36.9

* EBM: Established by Manufacturer

** Except for one 6 minute period per hour of not more than 27% opacity

*** EBA: Established by Applicant

**** BACT limit proposed by applicant in Table A-2 of application

a. Nitrogen Oxides (NO_x) Emissions:

- (1) When firing natural gas, NO_x emissions from the combustion turbine shall not exceed any of the following: 25 ppmvd (corrected to 15% oxygen), 39.6 pounds per hour, 141 tons per year.
- (2) When firing natural gas, NO_x emissions from the duct burner shall not exceed any of the following: 0.1 lb/MMBtu, 18.7 pounds per hour, 24.6 tons per year.
- (3) A steam injection system shall be installed to reduce NO_x emissions from the combustion turbine exhaust. The permittee shall install and operate a continuous monitoring system to monitor and record the ratio of steam to fuel being fired in the combustion turbine.

[Application No. 0010001-011-AC, PSD-FL-181 Rule 62-212.400, F.A.C., and 40 CFR 60, Subpart GG]

b. Visible Emissions (VE):

- (1) When firing natural gas in the combustion turbine (EU 007), duct burner (EU 005), and Nos. 4 and 5 Steam Boilers (EU 002 and 003), visible emissions shall not exceed 10 percent opacity.

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

A. Emissions Units 002, 003, 005 and 007

(2) When firing No. 2 fuel oil, in the Nos. 4 and 5 Steam Boilers (EU 002 and 003), visible emissions shall not exceed 20 percent opacity.

[Application No. 0010001-011-AC, PSD-FL-181 Rule 62-212.400, F.A.C.]

c. Sulfur Dioxide (SO₂) Emissions:

(1) SO₂ emissions from the combustion turbine shall not exceed the following: 0.015 percent by volume at 15 percent oxygen and on a dry basis. [40 CFR 60.333(a), Subpart GG]; and 1.0 grain sulfur per 100 standard cubic feet (SCF) of natural gas.

(2) SO₂ emissions from Nos. 4 and 5 Steam Boilers shall be controlled by firing natural gas and No. 2 fuel oil with a sulfur content that shall not exceed 0.5%, by weight.

[Application No. 0010001-011-AC, PSD-FL-181 Rules 62-212.400 and 62-296.406, F.A.C.]

d. Carbon Monoxide (CO) Emissions:

(1) CO emissions from the combustion turbine shall not exceed any of the following: 36.0 ppm vd (corrected to 15% oxygen), 35.8 pounds per hour, 127.5 tons per year.

(2) CO emissions from the duct burner shall not exceed any of the following: 0.15 lb/MMBtu, 28.1 pounds per hour, 36.9 tons per year.

[Application No. 0010001-011-AC, PSD-FL-181 Rule 62-212.400(12), F.A.C.]

3. Hours of Operation, Fuel Usage Limitations, Annual Limits and Facility Limits: ~~Fuel consumption rates and hours of operation for the turbine and duct burner shall not exceed those listed below:~~

	Natural Gas			No. 2 Fuel Oil		
	MM-ft ³ /hr*	MM-ft ³ /yr	Hr/yr*	M gal/hr*	M gal/yr	Hr/yr*
Turbine	367.9	2997.2**	8146.8	2.9	635.1	219.00**
Duct Burner	197.7	519.5	2628.0	0	0	0

*Based on maximum firing rates. Units may run at lower rates for more hours within annual fuel limits.

**An additional 1.9 hours/yr operation on natural gas will be allowed for each 1.0 hour/yr that fuel oil is not burned (up to 219 x 1.9 hours/yr), in which case, the emission limits in Specific Condition No. 2 shall be adjusted accordingly.

Boilers Nos. 4 and 5, firing natural gas or No. 2 fuel oil, may be operated as necessary for backup, as long as total NO_x emissions from the four sources within the permitted facility do not exceed 194.3 tons NO_x per year. The permittee shall maintain the required fuel use records to demonstrate compliance with this condition and include the total NO_x emission calculation in each annual operating report.

a. Hours of Operation: The hours of operation for the combustion turbine, duct burner and Nos. 4 and 5 Steam Boilers are not limited (8760 hours per year). The duct burner shall not burn more than 197,700 ft³/hour and 519.5 million ft³/yr of natural gas based on the lower heating value (LHV) of 950 Btu/ft³.

b. Authorized Fuels: The combustion turbine and duct burner are authorized to burn natural gas only. Boilers 4 and 5 are authorized to burn natural gas and No. 2 fuel oil with a sulfur content not to exceed 0.5%, by weight.

c. Annual Emissions Limitations: The combustion turbine may operate individually or in combination with the duct burner provided: 1) NO_x emissions from the combustion turbine alone do not exceed 141 tons per year for any calendar year; 2) NO_x emissions from the duct burner do not exceed 24.6 tons per year for any calendar year; 3) CO emissions from the combustion turbine alone do not exceed 127.5 tons per year for any calendar year; and 4) CO emissions from the duct burner do not exceed 36.9 tons per year for any calendar year.

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

A. Emissions Units 002, 003, 005 and 007

d. Facility-Wide NO_x Cap: The facility-wide NO_x emissions shall not exceed 185.3 tons per year for any calendar year for all emissions units regulated by this permit (EU 002, 003, 005 and 007). The Nos. 4 and 5 Steam Boilers may operate individually or in combination provided NO_x emissions from all emissions units regulated by this permit comply with the facility-wide NO_x emissions cap of 185.3 tons per year.

[Application No. 0010001-011-AC, PSD-FL-181, Rules 62-4.070(3), 62-2120.200(PTE) and 62-212.400(12), F.A.C.]

4. Testing Requirements: Before this construction permit expires, the cogeneration facility and Central Heat Plant (Boilers 4 and 5) stacks shall be sampled or tested as applicable according to the emission limits in Specific Condition No. 2. ~~Annual compliance tests shall be conducted each year thereafter.~~ Compliance tests shall be run at ~~90~~6% to 100% of the maximum capacity achievable for the average ~~ambient inlet~~ temperature during the compliance tests. The turbine manufacturer's capacity vs. temperature (~~ambient inlet~~) curve shall be included with the compliance test results. Tests shall be conducted using the following reference methods: NO_x by EPA Method 20; SO₂ by fuel supplier's sulfur analysis; VE by EPA Method 9; and CO by EPA Method 10. {Permitting Note: The requirements in the original permit to conduct initial compliance tests have previously been satisfied.}
- a. Visible Emissions (VE) Emissions: EU 002, 003, 005, and 007: Annual compliance with the above visible emissions limits shall be determined in accordance with EPA Method 9. A visible emissions test is not required for the Nos. 4 and 5 Steam Boilers while firing oil unless oil is fired for 400 hours or more in the federal fiscal year. [40 CFR 60, Appendix A]
- b. Sulfur Dioxide (SO₂) Emissions- EU 005 and 007: In lieu of an annual compliance test for SO₂, the fuels fired in the combustion turbine and/or duct burner shall comply with the fuel sulfur specifications in this permit. Compliance with the fuel sulfur limit on fuel for the combustion turbines assure compliance with the NSPS Subpart GG requirement of 0.8% sulfur, by weight.
- c. CO Emissions - EU 007: Annual compliance shall be determined in accordance with EPA Method 10. For purposes of demonstrating annual compliance with the annual tons per year limit, hourly heat input rates (MMBtu/hr) determined during the EPA Method 10 test shall be used to calculate the lb CO/MMBtu value, and actual annual heat input in MMBtu/year shall be used to obtain tons per year. The lb CO/MMBtu value shall be calculated during the facility's annual compliance test. [40 CFR 60, Subpart GG and appendix A, Rule 62-4.070(3), F.A.C.]
5. Test Notification: The permittee shall notify each Compliance Authority in writing at least 30 days prior to any initial NSPS performance tests and at least 15 days prior to any other required tests. Notification shall include the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and conducting the test. [Rule 62-297.310(7)(a)9., F.A.C. and 40 CFR 60.7, 60.8] ~~The DER Northeast District office shall be notified at least 30 days prior to the compliance tests. Compliance test results shall be submitted to the DER Northeast District office and the Bureau of Air Regulation office within 45 days after completion of the tests. Sampling facilities, methods, and reporting shall be in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A.~~
6. Monitoring Water-to-Fuel Ratio: A continuous operations monitoring system shall be installed, operated, and maintained in accordance with 40 CFR 60.334. The natural gas and steam injection flows to the cogeneration turbine along with the power output of the generator shall be metered and continuously recorded. The data shall be logged daily and maintained so that it can be provided to ~~DER~~ the Compliance Authority upon request.

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

A. Emissions Units 002, 003, 005 and 007

7. Space for Catalyst Module: The permittee shall have the option of including, in the initial construction, adequate modules and other provisions necessary for future installation of state-of-the-art catalytic abatement or equivalent CO and NO_x control systems. Within 90 days of receipt of the initial compliance test results, the Department shall, if CO emission limits are not met, review the need for making a revised determination of Best Available Control Technology (BACT) for CO. If test results from the turbine and duct burner show that it is unlikely that NO_x limits can be met, a revised BACT determination for NO_x shall also be considered. The Department may revise the BACT determination to require installation of such technology if so indicated by the revised BACT cost/benefit analysis. If the permittee has elected not to provide for future addition of such technology in the initial construction and later applies for a permit modification to increase capacity, the retrofit costs associated with not making provisions for such technology (initially) shall not be considered by the Department in the retrofit cost analysis required for the future expansion. *{Permitting Note: This requirement of the original permit has been previously satisfied.}*
8. Shutdown: Boilers Nos. 1, 2 and 3 shall permanently cease operation upon receipt of the operation permit for the cogeneration facility. *{Permitting Note: This requirement of the original permit has been previously satisfied.}*
9. Extension: 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). [Rule 62-4.080, F.A.C.]
- ~~10. An application for an operation permit must be submitted to the Northeast 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).~~
10. Combustion Turbine/Duct Burner Capacity: The heat input to the combustion turbine shall not exceed the values indicated on the turbine manufacturer's heat input vs. power output curve attached to this permit (Attachment C). The heat input to the duct burner system shall not exceed 188 MMBtu/hr on natural gas (no oil firing). The maximum heat input limits are based on the LHV of each fuel, 100% load, and ambient conditions of 59°F temperature, 60% relative humidity, and 14.7 psia.
11. Annual Compliance:
 - a. Nitrogen Oxides (NO_x) Emissions:
 - (1) Ongoing and annual compliance for EU 007, and EUs 007 and 005 firing simultaneously, shall be determined by the existing NO_x CEM system on a 30-day rolling average basis and reported as required by this permit to verify compliance with the 141 tons per year cap for 007 and facility-wide compliance with the 185.3 tons per year cap for NO_x emissions, including EU 007 (CT), EU 005 (DB), and EUs 002 and 003 (Nos. 4 and 5 Steam Boilers, respectively).
 - (2) CEMS records for EUs 007 and 005, along with cumulative fuel consumption records for EUs 002 and 003, shall be kept and maintained by the permittee.
 - (3) The permittee shall install and operate a continuous monitoring system to monitor and record fuel consumption as required by 40 CFR 60.334 for EU 007.
 - (4) Total NO_x emissions calendar year caps (CT and facility-wide) shall be reported in the facility's annual operating report.

[Rules 62-4.070(3), 62-204.800 and 62-297.100, F.A.C.; Appendix A of 40 CFR 60; and PSD-FL-181]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

A. Emissions Units 002, 003, 005 and 007

- b. Carbon Monoxide (CO) Emissions: The duct burner is not subject to any testing requirements; however the duct burner is subject to the annual reporting requirements of this permit. The permittee shall record the volume of natural gas combusted during the calendar reporting year to determine the method of calculating annual emissions. Annual emissions shall be based upon the actual volume of natural gas burned, the unit's potential emission limit of 0.15 lb/MMBtu and the LHV of 950 Btu/hr. [Application No. 0010001-011-AC]
- c. Sulfur Dioxide (SO₂) Emissions: Ongoing compliance with the fuel sulfur limit for natural gas (EU 002, 003, 005 and 007) and fuel oil (EU 002 and 003) shall be demonstrated by the fuel supplier's analysis reports containing the sulfur content of the fuel being supplied. Methods for determining the sulfur content of natural gas shall be ASTM methods D4084-82, D3246-81, or more recent versions. At the request of the Compliance Authority, the permittee or authorized laboratory contracted by the permittee may perform additional sampling and analysis for the fuel sulfur content using ASTM methods D4084-82, D3246-81, or more recent versions. Ongoing compliance with the fuel oil sulfur limits shall be demonstrated by fuel analysis certified according to the provisions of 40 CFR 75 Appendix D by the fuel sampler, or the permittee or authorized laboratory contracted by the permittee. [40 CFR 60, Subpart Db, Rules 62-4.070(3) and 62-4.105(15), F.A.C.]

12. Test Methods: Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources(The method shall be based on a continuous sampling train.)
19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates (Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4.)
20	Determination of Nitrogen Oxide Emissions from Stationary Sources

The above methods are described in Appendix A of 40 CFR 60 and are adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rules 62-204.800 and 62-297.100, F.A.C.; and Appendix A of 40 CFR 60]

- 13. Test Reports: The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix D (Common Testing Requirements) of this permit. [Rule 62-297.310(8), F.A.C.]
- 14. Compliance Tests Prior to Renewal: Prior to renewal of the facility's Title V permit, Boilers 4 and 5 shall be stack tested to determine NO_x emissions and to demonstrate compliance with the VE standards for both No. 2 fuel oil and natural gas. The emission factors established during the NO_x stack test, in either lb/MMBtu or lb/hr, shall be used to calculate NO_x annual emissions for the boilers in conjunction with the actual hours operated or total heat input for that given calendar year for both No. 2 fuel oil and natural gas. [Application No. 0010001-011-AC and Rule 62-297.310(7)(a)4, F.A.C.]
- 15. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup,

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

A. Emissions Units 002, 003, 005 and 007

shutdown or malfunction are prohibited. These emissions shall be included in the 24-hour compliance averages for NO_x and for CO emissions. [Rule 62-210.700(4), F.A.C.]

16. Excess Emissions Defined: During startup, shutdown, and documented unavoidable malfunction of the combined cycle gas turbine, the following permit conditions allow excess emissions or the exclusion of monitoring data for specifically defined periods of operation. These conditions apply only if operators employ the best operational practices to minimize the amount and duration of excess emissions during such incidents. If a CEMS reports emissions in excess of the standard, the permittee shall notify the Compliance Authority within (1) working day with a preliminary report of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. [Turbine Manufacturer Data; Rule 62-210.700, F.A.C.]
17. Excess Emissions Allowed: Excess emissions resulting from startup, shutdown, and malfunction shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case excess 2 hours in any 24-hour period unless specifically authorized by the Department for longer duration. For the combustion turbine/duct burner, the 24-hour period shall be defined as the 24-hour block used to determine the daily NO_x CEMS data. [Rule 62-210.700(1), F.A.C.]
18. Best operational practices: Best operational practices shall be used to minimize hourly emissions that occur during episodes of startup, shutdown and malfunction. Emissions of any quantity or duration that occur entirely or in part from poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented, shall be prohibited. [Rule 62-210.700, F.A.C.]
19. Continuous Emission Monitoring System: The owner or operator shall install, calibrate, maintain, and operate a CEMS in the stack to measure and record the emissions of NO_x from these emissions units in a manner sufficient to demonstrate compliance with the CEMS emission limits of this permit. The oxygen content or the carbon dioxide (CO₂) content of the flue gas shall also be monitored at the location where NO_x is monitored to correct the measured NO_x emissions rates to 15% oxygen. [Rule 62-210.700, F.A.C., 40 CFR 60, Subpart GG, and Acid Rain]
20. Fuel Consumption Monitoring of Operations: To demonstrate compliance with the fuel consumption limits, the permittee shall monitor and record the rates of consumption of each allowable fuel in accordance with the provisions of 40 CFR 75 Appendix D. To demonstrate compliance with the turbine capacity requirements, the permittee shall monitor and record the operating rate of the combustion turbine on a daily average basis, considering the number of hours of operation during each day (including the times of startup, shutdown and malfunction). Such monitoring shall be made using a monitoring component of the CEMS required above, or by monitoring daily rates of consumption and heat content of each allowable fuel in accordance with the provisions of 40 CFR 75 Appendix D. [Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.]
21. Fuel Consumption Rates Monthly Monitoring: By the ~~fifth~~ fifteenth calendar day of each month, the permittee shall record the monthly fuel consumption and hours of operation for the combustion turbine. The information shall be recorded in a verifiable manner and shall summarize the previous month of operation and the previous 12 months of operation. Information recorded and stored as an electronic file shall be available for inspection and printing within at least 3 days of a request by the Department or Compliance Authority. [Rule 62-4.070(3), F.A.C.]
22. Records: All measurements, records, and other data required to be maintained shall be recorded in a permanent form and retained for at least five years following the date on which such measurements, records,

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

A. Emissions Units 002, 003, 005 and 007

or data are recorded. These records shall be made available upon request. [Rules 62-4.160 and 62-213.440, F.A.C]

23. NSPS Notifications: All applicable notifications and reports required by 40 CFR 60, Subpart A shall be submitted to the Compliance Authority. [40 CFR 60, Subpart A]
24. Semi-Annual Reports: Semi-annual excess emission reports, in accordance with 40 CFR 60.7(d) (2000 version), shall be submitted to each Compliance Authority. [40 CFR 60.7]
25. Addresses: The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Northeast District Office and Branch Office: Department of Environmental Protection, Northeast District Office, 7825 Baymeadows Way, Suite 200-B, Jacksonville, FL 32256-7590, Telephone: 904/448-4300, Fax: 904/448-4363.
26. Equipment Replacement Provision (Replacement of Gas Turbine and Components): The gas turbine system generally consists of the following components: gas turbine, accessory drive system, air inlet and filtration system, fuel delivery system, cooling system, lubrication system, control system, starting system, and exhaust system with stack. This aero-derivative gas turbine is designed with modular components to facilitate quick repairs. Common "wear items" include compressor vanes, turbine nozzles, compressor blades, turbine blades, fuel nozzles, combustion chambers, seals, and shaft packing. The concept of modular design extends to the complete replacement of the gas turbine. Replacements are authorized provided the following requirements are met.
 - a. Gas turbines and components shall be replaced with equivalent "like-kind" equipment. Replacement components shall not increase the maximum heat input rate, capacity, or emissions from the gas turbine. Replacement components shall be designed to achieve and shall achieve the emissions standards specified in this permit or better.
 - b. Within 60 days of replacing a gas turbine, the permittee shall conduct emissions stack tests or relative accuracy test audits to demonstrate compliance with the emission standards for CO, NO_x and VE. The permittee shall comply with the requirements for notification, test methods, test procedures, and reporting required by this permit.
 - c. To up-rate the gas turbine or increase the maximum heat input rate or capacity, the permittee shall apply for prior approval through the air construction process.

[Design; Rule 62-4.070(3), F.A.C.]

SECTION 4. APPENDICES (DRAFT)

Contents

- Appendix A. Citation Formats and Glossary of Common Terms
- Appendix B. General Conditions
- Appendix C. Common Conditions
- Appendix D. Common Testing Requirements

SECTION 4. APPENDIX A (DRAFT)
Citation Formats and Glossary of Common Terms

CITATION FORMATS

The following illustrate the formats used in the permit to identify applicable requirements from permits and regulations.

Old Permit Numbers

Example: Permit No. AC50-123456 or Permit No. AO50-123456

Where: “AC” identifies the permit as an Air Construction Permit
“AO” identifies the permit as an Air Operation Permit
“123456” identifies the specific permit project number

New Permit Numbers

Example: Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

Where: “099” represents the specific county ID number in which the project is located
“2222” represents the specific facility ID number for that county
“001” identifies the specific permit project number
“AC” identifies the permit as an air construction permit
“AF” identifies the permit as a minor source federally enforceable state operation permit
“AO” identifies the permit as a minor source air operation permit
“AV” identifies the permit as a major Title V air operation permit

PSD Permit Numbers

Example: Permit No. PSD-FL-317

Where: “PSD” means issued pursuant to the preconstruction review requirements of the Prevention of Significant Deterioration of Air Quality
“FL” means that the permit was issued by the State of Florida
“317” identifies the specific permit project number

Florida Administrative Code (F.A.C.)

Example: [Rule 62-213.205, F.A.C.]

Means: Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

Code of Federal Regulations (CFR)

Example: [40 CFR 60.7]

Means: Title 40, Part 60, Section 7

GLOSSARY OF COMMON TERMS

° F: degrees Fahrenheit	CAM: compliance assurance monitoring
AAQS: Ambient Air Quality Standard	CEMS: continuous emissions monitoring system
acf: actual cubic feet	cfm: cubic feet per minute
acfm: actual cubic feet per minute	CFR: Code of Federal Regulations
ARMS: Air Resource Management System (DEP database)	CAA: Clean Air Act
BACT: best available control technology	CMS: continuous monitoring system
bhp: brake horsepower	CO: carbon monoxide
Btu: British thermal units	CO₂: carbon dioxide

SECTION 4. APPENDIX A (DRAFT)
Citation Formats and Glossary of Common Terms

COMS: continuous opacity monitoring system	NSPS: New Source Performance Standards
DARM: Division of Air Resource Management	O&M: operation and maintenance
DEP: Department of Environmental Protection	O₂: oxygen
Department: Department of Environmental Protection	Pb: lead
dscf: dry standard cubic feet	PM: particulate matter
dscfm: dry standard cubic feet per minute	PM₁₀: particulate matter with a mean aerodynamic diameter of 10 microns or less
EPA: Environmental Protection Agency	ppm: parts per million
ESP: electrostatic precipitator (control system for reducing particulate matter)	ppmv: parts per million by volume
EU: emissions unit	ppmvd: parts per million by volume, dry basis
F.A.C.: Florida Administrative Code	QA: quality assurance
F.A.W.: Florida Administrative Weekly	QC: quality control
F.D.: forced draft	PSD: prevention of significant deterioration
F.S.: Florida Statutes	psi: pounds per square inch
FGD: flue gas desulfurization	PTE: potential to emit
FGR: flue gas recirculation	RACT: reasonably available control technology
Fl: fluoride	RATA: relative accuracy test audit
ft²: square feet	RBLC: EPA's RACT/BACT/LAER Clearinghouse
ft³: cubic feet	SAM: sulfuric acid mist
gpm: gallons per minute	scf: standard cubic feet
gr: grains	scfm: standard cubic feet per minute
HAP: hazardous air pollutant	SIC: standard industrial classification code
Hg: mercury	SIP: State Implementation Plan
I.D.: induced draft	SNCR: selective non-catalytic reduction (control system used for reducing emissions of nitrogen oxides)
ID: identification	SO₂: sulfur dioxide
kPa: kilopascals	TPD: tons/day
lb: pound	TPH: tons per hour
MACT: maximum achievable technology	TPY: tons per year
MMBtu: million British thermal units	TRS: total reduced sulfur
MSDS: material safety data sheets	UTM: Universal Transverse Mercator coordinate system
MW: megawatt	VE: visible emissions
NESHAP: National Emissions Standards for Hazardous Air Pollutants	VOC: volatile organic compounds
NO_x: nitrogen oxides	

SECTION 4. APPENDIX B (DRAFT)

General Conditions

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are “permit conditions” and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. 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 403.987(6) and 403.722(5), F.S., 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 this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and 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 and 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.
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 reasonable times, 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 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 noncompliance; and
 - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. 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 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
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

SECTION 4. APPENDIX B (DRAFT)

General Conditions

Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard.

11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-730.300, 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:
 - a. Determination of Best Available Control Technology (not applicable);
 - b. Determination of Prevention of Significant Deterioration (not applicable); and
 - c. Compliance with New Source Performance Standards (applicable).
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:
 - (a) The date, exact place, and time of sampling or measurements;
 - (b) The person responsible for performing the sampling or measurements;
 - (c) The dates analyses were performed;
 - (d) The person responsible for performing the analyses;
 - (e) The analytical techniques or methods used;
 - (f) 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 the 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.

SECTION 4. APPENDIX C (DRAFT)

Common Conditions

Unless otherwise specified in the permit, the following conditions apply to all emissions units and activities at the facility.

EMISSIONS AND CONTROLS

1. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]
2. Circumvention: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]
3. Excess Emissions Allowed: Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed 2 hours in any 24-hour period unless specifically authorized by the Department for longer duration. Pursuant to Rule 62-210.700(5), F.A.C., the permit subsection may specify more or less stringent requirements for periods of excess emissions. Rule 62-210-700(Excess Emissions), F.A.C., cannot vary or supersede any federal NSPS or NESHAP provision. [Rule 62-210.700(1), F.A.C.]
4. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
5. Excess Emissions - Notification: In case of excess emissions resulting from malfunctions, the permittee shall notify the Compliance Authority 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.]
6. VOC or OS Emissions: No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]
7. Objectionable Odor Prohibited: No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rules 62-296.320(2) and 62-210.200(Definitions), F.A.C.]
8. General Visible Emissions: No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]
9. Unconfined Particulate Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

RECORDS AND REPORTS

10. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least 5 years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rule 62-213.440(1)(b)2, F.A.C.]
11. Emissions Computation and Reporting:
 - a. *Applicability*. This rule sets forth required methodologies to be used by the owner or operator of a facility for computing actual emissions, baseline actual emissions, and net emissions increase, as defined at Rule 62-210.200, F.A.C., and for computing emissions for purposes of the reporting requirements of subsection 62-210.370(3) and paragraph 62-212.300(1)(e), F.A.C., or of any permit condition that requires emissions be computed in accordance with this rule. This rule is not intended to establish methodologies for determining compliance with the emission

SECTION 4. APPENDIX C (DRAFT)

Common Conditions

limitations of any air permit. [Rule 62-210.370(1), F.A.C.]

- b. *Computation of Emissions.* For any of the purposes set forth in subsection 62-210.370(1), F.A.C., the owner or operator of a facility shall compute emissions in accordance with the requirements set forth in this subsection.
- (1) Basic Approach. The owner or operator shall employ, on a pollutant-specific basis, the most accurate of the approaches set forth below to compute the emissions of a pollutant from an emissions unit; provided, however, that nothing in this rule shall be construed to require installation and operation of any continuous emissions monitoring system (CEMS), continuous parameter monitoring system (CPMS), or predictive emissions monitoring system (PEMS) not otherwise required by rule or permit, nor shall anything in this rule be construed to require performance of any stack testing not otherwise required by rule or permit.
- (a) If the emissions unit is equipped with a CEMS meeting the requirements of paragraph 62-210.370(2)(b), F.A.C., the owner or operator shall use such CEMS to compute the emissions of the pollutant, unless the owner or operator demonstrates to the department that an alternative approach is more accurate because the CEMS represents still-emerging technology.
- (b) If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., but emissions of the pollutant can be computed pursuant to the mass balance methodology of paragraph 62-210.370(2)(c), F.A.C., the owner or operator shall use such methodology, unless the owner or operator demonstrates to the department that an alternative approach is more accurate.
- (c) If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., and emissions cannot be computed pursuant to the mass balance methodology, the owner or operator shall use an emission factor meeting the requirements of paragraph 62-210.370(2)(d), F.A.C., unless the owner or operator demonstrates to the department that an alternative approach is more accurate.
- (2) Continuous Emissions Monitoring System (CEMS).
- (a) An owner or operator may use a CEMS to compute emissions of a pollutant for purposes of this rule provided:
- 1) The CEMS complies with the applicable certification and quality assurance requirements of 40 CFR Part 60, Appendices B and F, or, for an acid rain unit, the certification and quality assurance requirements of 40 CFR Part 75, all adopted by reference at Rule 62-204.800, F.A.C.; or
- 2) The owner or operator demonstrates that the CEMS otherwise represents the most accurate means of computing emissions for purposes of this rule.
- (b) Stack gas volumetric flow rates used with the CEMS to compute emissions shall be obtained by the most accurate of the following methods as demonstrated by the owner or operator:
- 1) A calibrated flow meter that records data on a continuous basis, if available; or
- 2) The average flow rate of all valid stack tests conducted during a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.
- (c) The owner or operator may use CEMS data in combination with an appropriate f-factor, heat input data, and any other necessary parameters to compute emissions if such method is demonstrated by the owner or operator to be more accurate than using a stack gas volumetric flow rate as set forth at subparagraph 62-210.370(2)(b)2., F.A.C., above.
- (3) Mass Balance Calculations.
- (a) An owner or operator may use mass balance calculations to compute emissions of a pollutant for purposes of this rule provided the owner or operator:
- 1) Demonstrates a means of validating the content of the pollutant that is contained in or created by all materials or fuels used in or at the emissions unit; and
- 2) Assumes that the emissions unit emits all of the pollutant that is contained in or created by any material or fuel used in or at the emissions unit if it cannot otherwise be accounted for in the

SECTION 4. APPENDIX C (DRAFT)

Common Conditions

process or in the capture and destruction of the pollutant by the unit's air pollution control equipment.

- (b) Where the vendor of a raw material or fuel which is used in or at the emissions unit publishes a range of pollutant content from such material or fuel, the owner or operator shall use the highest value of the range to compute the emissions, unless the owner or operator demonstrates using site-specific data that another content within the range is more accurate.
- (c) In the case of an emissions unit using coatings or solvents, the owner or operator shall document, through purchase receipts, records and sales receipts, the beginning and ending VOC inventories, the amount of VOC purchased during the computational period, and the amount of VOC disposed of in the liquid phase during such period.

(4) Emission Factors.

- a. An owner or operator may use an emission factor to compute emissions of a pollutant for purposes of this rule provided the emission factor is based on site-specific data such as stack test data, where available, unless the owner or operator demonstrates to the department that an alternative emission factor is more accurate. An owner or operator using site-specific data to derive an emission factor, or set of factors, shall meet the following requirements.
 - 1) If stack test data are used, the emission factor shall be based on the average emissions per unit of input, output, or gas volume, whichever is appropriate, of all valid stack tests conducted during at least a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.
 - 2) Multiple emission factors shall be used as necessary to account for variations in emission rate associated with variations in the emissions unit's operating rate or operating conditions during the period over which emissions are computed.
 - 3) The owner or operator shall compute emissions by multiplying the appropriate emission factor by the appropriate input, output or gas volume value for the period over which the emissions are computed. The owner or operator shall not compute emissions by converting an emission factor to pounds per hour and then multiplying by hours of operation, unless the owner or operator demonstrates that such computation is the most accurate method available.
- b. If site-specific data are not available to derive an emission factor, the owner or operator may use a published emission factor directly applicable to the process for which emissions are computed. If no directly-applicable emission factor is available, the owner or operator may use a factor based on a similar, but different, process.

- (5) Accounting for Emissions During Periods of Missing Data from CEMS, PEMS, or CPMS. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of missing data from CEMS, PEMS, or CPMS using other site-specific data to generate a reasonable estimate of such emissions.
- (6) Accounting for Emissions During Periods of Startup and Shutdown. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of startup and shutdown of the emissions unit.
- (7) Fugitive Emissions. In computing the emissions of a pollutant from a facility or emissions unit, the owner or operator shall account for the fugitive emissions of the pollutant, to the extent quantifiable, associated with such facility or emissions unit.
- (8) Recordkeeping. The owner or operator shall retain a copy of all records used to compute emissions pursuant to this rule for a period of five years from the date on which such emissions information is submitted to the department for any regulatory purpose.

[Rule 62-210.370(2), F.A.C.]

SECTION 4. APPENDIX C (DRAFT)

Common Conditions

c. *Annual Operating Report for Air Pollutant Emitting Facility*

- (1) The Annual Operating Report for Air Pollutant Emitting Facility (DEP Form No. 62-210.900(5)) shall be completed each year for the following facilities:
 - a. All Title V sources.
 - b. All synthetic non-Title V sources.
 - c. All facilities with the potential to emit ten (10) tons per year or more of volatile organic compounds or twenty-five (25) tons per year or more of nitrogen oxides and located in an ozone nonattainment area or ozone air quality maintenance area.
 - d. All facilities for which an annual operating report is required by rule or permit.
- (2) Notwithstanding paragraph 62-210.370(3)(a), F.A.C., no annual operating report shall be required for any facility operating under an air general permit.
- (3) The annual operating report shall be submitted to the appropriate Department of Environmental Protection (DEP) division, district or DEP-approved local air pollution control program office by April 1 of the following year, except that the annual operating report for year 2008 shall be submitted by May 1, 2009. If the report is submitted using the Department's electronic annual operating report software, there is no requirement to submit a copy to any DEP or local air program office.
- (4) Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C., for purposes of the annual operating report.
- (5) Facility Relocation. Unless otherwise provided by rule or more stringent permit condition, the owner or operator of a relocatable facility must submit a Facility Relocation Notification Form (DEP Form No. 62-210.900(6)) to the Department at least 30 days prior to the relocation. A separate form shall be submitted for each facility in the case of the relocation of multiple facilities which are jointly owned or operated.

[Rule 62-210.370(3), F.A.C.]

SECTION 4. APPENDIX D (DRAFT)

Common Testing Requirements

Unless otherwise specified in the permit, the following testing requirements apply to all emissions units at the facility.

COMPLIANCE TESTING REQUIREMENTS

1. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate 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. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. [Rule 62-297.310(2), F.A.C.]
2. Applicable Test Procedures - 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.[Rule 62-297.310(4), F.A.C.]
3. 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.]
4. 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*.
 1. The owner or operator of a new or modified emissions unit that is subject to an emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining an operation permit for such emissions unit.
 2. 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 sub-subparagraph 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department

SECTION 4. APPENDIX D (DRAFT)

Common Testing Requirements

shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

- (a) Did not operate; or
 - (b) In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours,
3. 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 visible emissions, if there is an applicable standard.
 4. 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 shall 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.

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

RECORDS AND REPORTS

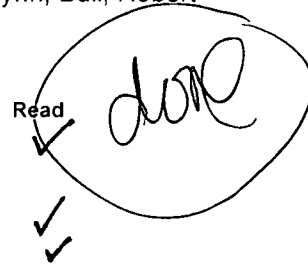
5. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. 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 shall provide the following information.
 - a. The type, location, and designation of the emissions unit tested.
 - b. The facility at which the emissions unit is located.
 - c. The owner or operator of the emissions unit.
 - d. 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.
 - e. 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.
 - f. The date, starting time and end time of the observation.
 - g. The test procedures used.
 - h. The names of individuals who furnished the process variable data, conducted the test, and prepared the report.
 - i. 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.
 - j. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. 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.]

Scarce, Lynn

From: Scarce, Lynn
Sent: Friday, July 08, 2011 11:43 AM
To: 'wilson.hicks@pgnmail.com'
Cc: 'chris.bradley@pgnmail.com'; 'scott_osbourn@golder.com'; 'Kirts, Christopher'; 'Forney.Kathleen@epamail.epa.gov'; Koerner, Jeff; Scarce, Lynn; Bull, Robert
Subject: U OF FL COGEN; 0010001-011-AC
Attachments: 0010001-011-ACPSD-FL-181B_draft_permit_letter.pdf

Tracking:	Recipient	Delivery
	'wilson.hicks@pgnmail.com'	
	'chris.bradley@pgnmail.com'	
	'scott_osbourn@golder.com'	
	'Kirts, Christopher'	Delivered: 7/8/2011 11:43 AM
	'Forney.Kathleen@epamail.epa.gov'	
	Koerner, Jeff	Delivered: 7/8/2011 11:43 AM
	Scarce, Lynn	Delivered: 7/8/2011 11:43 AM
	Bull, Robert	Delivered: 7/8/2011 11:43 AM

Read 

Read: 7/8/2011 11:44 AM

Dear Sir/ Madam:

Attached is the official **Notice of Draft Permit** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).

Attention:

Owner/Company Name: FLORIDA POWER CORPORATION D/B/A PROGRESS
Facility Name: U OF FL COGEN
Project Number: 0010001-011-AC
Permit Status: DRAFT
Permit Activity: CONSTRUCTION
Facility County: ALACHUA

Click on the following link to access the permit project documents:
http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0010001.011.AC.D_pdf.zip

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the "Air Permit Documents Search" website at <http://www.dep.state.fl.us/air/emission/apds/default.asp>.

Permit project documents addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Air Compliance and Permitting.

Note: The attached document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html> .

Lynn Scarce

Air Permitting and Compliance

Division of Air Resource Management – DEP
2600 Blair Stone Road, Mail Stop 5505

Scearce, Lynn

From: Hicks Jr, Wilson B [Wilson.Hicks@pgnmail.com]
Sent: Tuesday, July 12, 2011 10:50 AM
To: Scearce, Lynn
Subject: RE: U OF FL COGEN; 0010001-011-AC

From: Scearce, Lynn [mailto:Lynn.Scearce@dep.state.fl.us]
Sent: Friday, July 08, 2011 11:43 AM
To: Hicks Jr, Wilson B
Cc: Bradley, Chris; scott_osbourn@golder.com; Kirts, Christopher; Forney.Kathleen@epamail.epa.gov; Koerner, Jeff; Scearce, Lynn; Bull, Robert
Subject: U OF FL COGEN; 0010001-011-AC

Dear Sir/ Madam:

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Attention:

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The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the "Air Permit Documents Search" website at <http://www.dep.state.fl.us/air/emission/apds/default.asp>.

Permit project documents addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems

opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Air Compliance and Permitting.

Note: The attached document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <<http://www.adobe.com/products/acrobat/readstep.html>> .

Lynn Scarce

Air Permitting and Compliance

Division of Air Resource Management – DEP
2600 Blair Stone Road, Mail Stop 5505

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