DRAFT PERMIT

PERMITTEE:

Florida Power Corporation dba
Progress Energy Florida (PEF)
1601 Weedon Island Street
St. Petersburg, Florida 33702

Authorized Representative:
Mr. Rufus Jackson, Plant Manager

DEP File No. 1030011-011-AC
P. L. Bartow Power Plant
Steam Unit (SU) No. 1
SIC No. 4911
Biofuel Test Burn
Expires December 31, 2009

PROJECT AND LOCATION

This permit authorizes PEF to test burn in Steam Unit (SU) No. 1 at the P.L. Bartow Power Plant approximately 12,000 gallons of a vegetable oil based emulsified biofuel. The P.L. Bartow Power Plant is located at 1601 Weedon Island Drive, St. Petersburg, Pinellas County, Florida. The UTM coordinates are Zone 17, 342.4 km East and 3,082.6 km North.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the work specified in accordance with the conditions of this permit and as described in the application, approved drawings, plans and other documents on file with the Florida Department of Environmental Protection (Department). This permit supplements all other air construction and operation permits for the subject emissions unit and does not alter any requirements from such previously issued air permits.

CONTENTS

Section 1. Facility Information
Section 2. Administrative Requirements
Section 3. Emissions Unit (EU) Specific Conditions
Section 4. Appendix GC

_____ _____
Joseph Kahn, Director (Date)
Division of Air Resource Management

DRAFT PERMIT

FACILITY DESCRIPTION

Progress Energy Florida operates the Bartow Plant, which is an existing power plant (SIC No. 4911). The plant currently consists of:

- Three fossil fuel fired steam generating units designated as Units 1, 2 and 3 that produce 120, 120 and 225 megawatts (MW) of electrical power respectively;
- Four simple cycle units designated as Gas Combustion Turbine Peaking Units Nos. P-1, P-2, P-3 and P-4 each of which has a nominal capacity of 56 MW; and
- Miscellaneous unregulated/insignificant emissions units including a pipeline heating boiler and relocatable diesel generators that can be located at various PEF power plants.

(Note: Units 1, 2 and 3 will be retired on March 21, 2009 and replaced with natural gas fired combustion turbines as part of a repowering project)

EMISSION UNIT

The proposed project affects the following existing emissions unit:

ID No.	Emission Unit Description
001	Unit 1 is a 120 MW fossil fuel fired steam generator unit

PROJECT

This project will involve the test burning in Unit 1 of approximately 12,000 gallons (two tanker truck loads) of a vegetable oil based emulsified biofuel. The biofuel is called SuperClassic (SC) developed by New Generation Biofuels (NGB).

The project is a field test to determine the feasibility with regard to pollutant emissions and operational considerations of burning this biofuel in Unit 1 prior to the permanent shut down of Unit 1 in the spring of 2009.

During the test, the biofuel will be stored in tanker trucks and then valved into the appropriate burner(s) in Unit 1 using an electrically driven pump skid.

REGULATORY CLASSIFICATION

- The facility is classified as a major stationary source with respect to the applicability of the rules for the prevention of significant deterioration (PSD).
- The facility is classified as a major source of air pollution with respect to Title V of the Clean Air Act.
- The facility is a major source of hazardous air pollutants.
- The facility operates emissions units that are subject to Title IV of the Clean Air Act and specifically to the Phase II, Federal Acid Rain Program.
- The facility operates emissions units that are subject to the Clean Air Interstate Rule (CAIR).

DRAFT PERMIT

RELEVANT DOCUMENTS

- The original application that was received on March 25, 2008.
- The revised application that was received on November 10, 2008.
- Additional information that was received on December 23, 2008.
- The draft permit package that was issued by the Department on February 4, 2009.

DRAFT PERMIT

GENERAL AND ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: All documents related to applications for permits to construct, modify or operate this emissions unit shall be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection ("Department"), at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 and phone number 850/488-0114. Copies of these documents shall be submitted to the Compliance Authority.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications should be submitted to the Air Quality Division of the Pinellas County Department of Environmental Management Office at 300 South Garden Avenue, Clearwater, Florida 34616.
3. Terminology: The terms used in this permit have specific meanings as defines in the applicable chapters of the Florida Administrative Code (F.A.C.).
4. General Conditions: The owner and operator are subject to, and shall operate under the attached General Conditions listed in *Appendix GC* of this permit. General Conditions are binding and enforceable pursuant to Chapter 403, F.S. [Rule 62-4.160, F.A.C.]
5. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of this project 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. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
6. Permit Expiration: For good cause, the permittee may request that this air construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation at least sixty (60) days prior to the expiration of this permit. [Rules 62-4.070(4), 62-4.080 and 62-210.300(1), F.A.C.]
7. 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.]
8. Modifications: No emissions unit or facility subject to this permit shall be constructed or 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.]
9. Title V Permit: The project will be conducted prior to the permanent and required shut down of Unit 1 in spring of 2009. No revision of the facility's Title V permit will be required as a result of this project.

DRAFT PERMIT

EU 001 – UNIT 1

This section of the permit addresses the following emissions unit:

ID No.	Emission Unit Description
001	Unit 1 is a front fired, fossil fuel steam generating unit that produces a nominal 120 MW of electrical power. It began commercial service in 1958 and is a Phase II Acid Rain Unit. Authorized fuels include No. 6 fuel oil, distillate oil, and on-specification used fuel oil. The maximum heat input rate is 1220 MMBtu per hour. Particulate matter emissions are controlled by an electrostatic precipitator originally manufactured by General Services, Inc. Stack opacity is continuously monitored and recorded.

APPLICABILITY OF PREVIOUS PERMITS

1. Previous Permit Conditions: Unit 1 is subject to conditions from previous air construction or operation permits. They continue to apply except as modified by this permit. In particular, the conditions of the current facility Title V operation permit No. 1030011-009-AV 11 issued on December 27, 2004 continue to apply. [Rule 62-4.210, F.A.C.]

PROJECT ACTIVITIES

2. Biofuel Handling and Burning: This permit authorizes use of up to 12,000 gallons of biofuel in Unit 1. The permittee is authorized to receive by tanker truck and to burn up to 12,000 gallons of biofuel at the facility. The biofuel will be fed from the delivered tank utilizing an electrically powered pump skid. [Applicant Request]

3. Cofiring with other Approved Fuels: The permittee is authorized to blend or co-fire the biofuel with any other fuel presently authorized for use in Unit 1. [Applicant Request]

OPERATING REQUIREMENTS

4. Use of existing Continuous Emission Monitoring Systems (CEMS): The permittee shall continue to use the existing sulfur dioxide (SO_2) and nitrogen oxides (NO_X) CEMS as presently employed. The permittee shall note the periods of time during which biofuel is used and the amount in such a manner that comparisons can be made between SO_2/NO_X emissions when using biofuels and SO_2/NO_X emissions when not using biofuel.

5. Use of existing Continuous Opacity Monitoring System (COMS): The permittee shall continue to use the existing COMS to monitor visible emissions (VE) as presently employed. The permittee shall note the periods of time during which biofuel is used and the amount in such a manner that comparisons can be made between VE when using biofuels and VE when not using biofuel.

6. Carbon Dioxide (CO) and Volatile Organic Compounds (VOC): In accordance with EPA Method 10, CO tests will be conducted during the biofuel field test. A CO test with be conducted prior to the firing of the biofuel in the SU with the SU firing No. 6 fuel oil at between 90 to 100 percent of the maximum load to determine baseline CO emissions. Then a CO emissions test will be conducted when firing the biofuel as a supplemental (10 percent by volume) fuel to the No. 6 fuel oil at between 90 to 100 percent of the maximum load. No VOC testing is required as CO will serve as a surrogate in this application.

NOTIFICATIONS AND REPORTS

7. Notifications: The permittee shall notify the Compliance Authority at least seven days before initiating use of biofuel in Unit 1. The permittee shall also notify the Compliance Authority at least seven days prior to conducting the CO test required by Condition 6. [Rule 62-4.210, F.A.C.]

8. Reports: The permittee shall submit to the Department a report documenting the results of the field test of the biofuel in Unit 1 no later than 45 days after the completion of field test.

DRAFT PERMIT

APPENDIX GC – GENERAL CONDITIONS

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

G.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 or exhibits, specifications or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

G.3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and 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 or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

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

G.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.

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

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

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

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

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

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

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

DRAFT PERMIT

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

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

G.11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code 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.

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

G.13. This permit also constitutes:

(a) Determination of Best Available Control Technology (not applicable to project);

(b) Determination of Prevention of Significant Deterioration (not applicable to project); and

(c) Compliance with New Source Performance Standards (not applicable to project).

G.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 or 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:

1. The date, exact place, and time of sampling or measurements;
2. The person responsible for performing the sampling or measurements;
3. The dates analyses were performed;
4. The person responsible for performing the analyses;
5. The analytical techniques or methods used; and
6. The results of such analyses.

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

DRAFT PERMIT