DRAFT

PERMITTEE

Orlando Utilities Commission
500 South Orange Avenue
Post Office Box 3193
Orlando, Florida 32802

Permit No.: 0950137-009-AC
Expires: May 30, 2006
Facility ID No.: 0950137 (SIC No. 4911)
Unit # 1 Burner Replacement Project

PROJECT AND LOCATION

This permit authorizes the replacement of 6 of the 30 burners in the Unit # 1 boiler furnace at the Curtis H. Stanton Energy Center. The facility is located at 5100 Alafaya Trail, Orlando, Orange County. The map coordinates are: UTM Zone 17, 484.00 km East and 3150.50 km North; and Latitude: 28° 28' 50" North and Longitude: 81° 09' 40" West.

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 Department.

APPENDICES

The following appendices are attached as part of this permit.

Appendix GC - Construction Permit General Conditions

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Michael G. Cooke, Director
Division of Air Resource Management

FACILITY DESCRIPTION

This facility consists of two coal-fired boilers (Acid Rain Phase II Units) and two gas-fired combustion turbines serving a single steam-electrical generator (Acid Rain Phase II Units).

There are storage and handling facilities for solid fuels, fly ash, limestone, gypsum, slag, and bottom ash.

Unit Nos. 1 and 2 each consist of one Babcock and Wilcox boiler/steam generator (Model RB 611) and steam turbine, which drives a generator with a nameplate rating of 468 Megawatts. Each boiler/steam generator is a coal-fueled, wall fired, dry bottom unit that uses No. 6 fuel oil used for startup and flame stabilization. Each unit has a stack. Each unit is equipped with an electrostatic precipitator for control of particulate matter (PM/PM_{10}) and a limestone scrubber for sulfur dioxide (SO_2) control. Additionally, Unit 2 is equipped with a selective catalytic reduction (SCR) system for nitrogen oxides (NO_X) control. Units 1 and 2 began commercial operation in 1987 and 1996, respectively.

The 640 MW combined cycle unit is comprised of two 170 MW, General Electric 7FA combustion turbine-electrical generators, fired with pipeline natural gas or diesel and equipped with evaporative coolers on the inlet air system, two supplementary fired heat recovery steam generators, each with a 160 ft. stack, and one steam turbine-electrical generator rated at approximately 300 MW. The winter capacity of this unit is approximately 700 MW. The combustion turbines are equipped with Dry Low NO_X combustors as well as an SCR in order to control NO_X. SO_2 and PM/PM_{10} are controlled by use of inherently clean natural gas and low sulfur fuel oil.

PROJECT

The proposed project affects the following existing emissions unit:

E.U. ID No.	Brief Description
-001	Fossil Fuel Fired Steam Generator # 1

REGULATORY CLASSIFICATION

Title III: Based on the initial Title V permit, the facility is a major source of hazardous air pollutants.

Title IV: The facility operates emissions units that are subject to the Phase II, Federal Acid Rain Program.

Title V: The facility is classified as a “major” source of air pollution with respect to Title V of the Clean Air Act because emissions of at least one regulated criteria air pollutant exceeds 100 tons per year.

PSD: The project is located in an area designated as “attainment” or “unclassifiable” for each pollutant subject to a National Ambient Air Quality Standard. The facility is considered a “fossil fuel fired steam electric plant of more than 250 million BTU per hour of heat input”, which is one of the 28 PSD source categories with the lower PSD applicability threshold of 100 tons per year. Potential emissions of at least one regulated pollutant exceed 100 tons per year. Therefore, the facility is classified as a PSD-major source of air pollution with respect to Rule 62-212.400, F.A.C., the Prevention of Significant Deterioration (PSD) of Air Quality. The three units were built pursuant to PSD permits and determinations of best available control technology (BACT).

NSPS: Units 1 and 2 are subject to Subpart Da and the combined cycle unit is subject to Subparts GG and Db of the New Source Performance Standards in 40 CFR 60.

RELEVANT DOCUMENTS

- Application received on September 14, 2005, for Unit 1 burner replacement project;
- Permits PSD-FL-084 and PSD-FL-084A issued by EPA for the construction of Unit Nos. 1 and 2;
- Current Title V Air Operation Permit Renewal No.: 0950137-006-AV; and
- Department's Technical Evaluation and Preliminary Determination dated [Month day, 2005].

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 (DEP), 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 Central District Office at 3319 Maguire Boulevard, Suite 232, Orlando Florida 32803-3767. The phone number is 407/894-7555 and the fax number is 407/897-2966.
3. 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 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
4. 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 of the Florida Statutes (F.S.); and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297 of the Florida Administrative Code (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.]
5. 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.]
6. 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.]
7. 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.]
8. Title V Permit: This permit authorizes construction of the proposed project and initial operation to determine compliance with Department rules. This project involves no changes in the descriptions, applicable requirements, or conditions of the facility Title V Operation Permit. The permittee is not required to apply for a revised Title V operation permit following completion of the project.

The proposed project affects the following existing unit:

E.U. ID No.	Brief Description
-001	Fossil Fuel Fired Steam Generator # 1

Fossil fuel fired steam generator # 1 is a nominal 468 megawatt steam generator designated as Unit # 1. The emission unit is fired primarily on bituminous coal and secondarily on No. 6 fuel oil for startup and flame stabilization, as permitted herein, with a maximum heat input of 4286 MMBtu/hour.

Boiler/steam generator, Unit # 1 is regulated under the federal Acid Rain Program, Phase II, adopted and incorporated by reference in Rule 62-204.800, F.A.C. Emission Units 1 is subject to compliance assurance monitoring (CAM) for particulate matter (PM) emissions controlled by an ESP. Because the continuous opacity monitoring system (COMS) is required to be used at the facility (for Phase II Acid Rain Program purposes), it must also be used as part of the CAM plan. *A CAM plan is included for the ESP*

The following parameters are continuously monitored for this unit: NO_X, opacity, SO_2, CO_2, and stack gas flow.

{Permitting note(s): This emissions unit is regulated under Acid Rain, Phase II; NSPS-40 CFR 60, Subpart Da, Standards of Performance for Fossil-Fuel Fired Steam Generators for Which Construction is Commenced After September 18, 1978, adopted and incorporated by reference in Rule 62-204.800(7)(b)2, F.A.C.; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD); and Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT), and Compliance Assurance Monitoring (CAM). Fossil fuel fired steam generator # 1 began commercial operation on May 12, 1987.}

ADMINISTRATIVE REQUIREMENTS

1. Previous Permit Conditions: This permit authorizes the replacement of 6 of the 30 burners in the Unit # 1 boiler furnace. The following conditions are in addition to those of any other air construction or operation permits. [Rule 62-4.210, F.A.C.]

CONSTRUCTION ACTIVITIES

2. Burner Replacement: This permit authorizes the replacement of 6 of the 30 burners in the upper portion of the Unit # 1 boiler furnace. The permittee shall replace the burners with burners that are *"functionally equivalent or like-kind."* [Applicant Request dated September 12, 2005]
3. Unconfined Particulate Emissions: During the construction period, unconfined particulate emissions shall be minimized by dust suppressing techniques such as covering, enclosing, applying water or chemicals to the affected areas, or any combination of techniques, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

NOTIFICATIONS AND REPORTS

4. Notifications: Within one week of beginning construction, the permittee shall notify the Compliance Authority that the project has commenced and provide a general schedule of construction activities. Within one week of completing construction, the permittee shall notify the Compliance Authority that the project has concluded and provide a general schedule of bringing the unit back on line. [Rule 62-4.210, F.A.C.]

5. Emissions Monitoring:

   a. Completion of this project occurs when all burners have been installed and are operational. After completion of this project, the permittee shall monitor NO_X, opacity, and SO_2 emissions consistent with the averaging times specified in Permit No. 0950137-006-AV. The monitoring period shall be conducted with the 6 new burners in operation. The permittee shall submit a report comparing the emissions data during this period to the specific emission limits in Permit No. 0950137-006-AV, within 60 days of completion of this project. The permittee shall provide a statement as to whether or not the unit is in compliance with the specific emission limits in Permit No. 0950137-006-AV. [Rule 62-4.070(3), F.A.C.]

   b. The actual operating rates of Unit # 1 during this monitoring period, specifically, heat input {MMBTU/hr}, electrical output {MW}, type(s) of fuel(s) fired shall be provided in the report. The number of burners in operation, identification and their respective locations shall also be included in the report. [Rules 62-4.070(3) and 62-297.310(7), F.A.C.]

6. PSD Applicability Report: The permittee shall maintain information demonstrating that the project did not result in any significant net emissions increase, which is defined in Rule 62-212.400(2)(e), F.A.C. as follows:

Net Emissions Increase. A modification to a facility results in a net emissions increase when, for a pollutant regulated under the Act, the sum of all of the contemporaneous creditable increases and decreases in the actual emissions of the facility, including the increase in emissions of the modification itself and any increases and decreases in quantifiable fugitive emissions, is greater than zero.

Significant Net Emissions Increase. A significant net emissions increase of a pollutant regulated under the Act is a net emissions increase equal to or greater than the applicable significant emission rate listed in Table 212.400-2, Regulated Air Pollutants – Significant Emission Rates.

The permittee shall submit an annual report to the Department's Bureau of Air Regulation of such information for a period of 5 years representative of normal post-change operations of the unit (within the period not longer than 10 years following the change). For an existing electric utility steam-generating unit, actual emissions of the unit following a physical or operational change shall equal the representative actual annual emissions of the unit following the physical or operational change. The following definition of "representative actual annual emissions" found in 40 CFR 52.21(b)(33) is adopted and incorporated by reference in Rule 62-204.800, F.A.C.:

Representative actual annual emissions means the average rate, in tons per year, at which the source is projected to emit a pollutant for the two-year period after a physical change or change in the method of operation of a unit, (or a different consecutive two-year period within 10 years after that change, where the Administrator determines that such period is more representative of normal source operations), considering the effect any such change will have on increasing or decreasing the hourly emissions rate and on projected capacity utilization. In projecting future emissions the Administrator shall:

(i) Consider all relevant information, including but not limited to, historical operational data, the company's own representations, filings with the State or Federal regulatory authorities, and compliance plans under title IV of the Clean Air Act; and

(ii) Exclude, in calculating any increase in emissions that results from the particular physical change or change in the method of operation at an electric utility steam generating unit, that portion of the unit's emissions following the change that could have been accommodated during the representative baseline period and is attributable to an increase in projected capacity utilization at the unit that is unrelated to the particular change, including any increased utilization due to the rate of electricity demand growth for the utility system as a whole."

Each required annual report shall be submitted to the Department's Bureau of Air Regulation prior to **August 1st** and shall quantify operations for the previous calendar year(s).

[Rules 62-204.800, 62-210.200(11) and 62-212.400(2), F.A.C.; and 40 CFR 52.21(b)(33)]

Appendix GC - Construction Permit 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.

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.