FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
BOB MARTINEZ CENTER
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TALLAHASSEE, FLORIDA 32399-2400

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PERMITTEE

Orlando Utilities Commission (OUC)
Reliable Plaza, 100 West Anderson
Orlando, Florida 32801

Authorized Representative:
Mr. Chip Merriam, Vice President,
Legislative and Regulatory Affairs

Air Permit No. 0950137-045-AC
Permit Expires: June 30, 2016
Minor Air Construction Permit
Stanton Energy Center
Units 1 and 2 Pollution Reduction Projec

PROJECT

This is the final air construction permit that authorizes the installation and operation of several pollutant reduction systems at the reference facility. Specifically, OUC is requesting to install Fuel Lean Gas Reburn (FLGR) systems on the fossil fuel-fired Units 1 and 2 at the Stanton Energy Center for additional nitrogen oxide (NO_X) reduction. In addition, OUC is requesting authorization to upgrade the existing flue gas desulfurization (FGD) scrubber system on Unit 2 to help meet the sulfur dioxide (SO_2) emissions limit in the Mercury and Air Toxics (MATS) rule. Finally, OUC is requesting authorization to install an activated carbon injection (ACI) system on Unit 2, similar to the temporary system previously authorized by Permit No. 0950137-042-AC. This system will be used in combination with chemical spray technology to mitigate mercury emissions.

The Stanton Energy Center is an existing electrical generation plant categorized under Standard Industrial Classification Number (No.) 4911. The existing facility is located in Orange County at 5100 South Alafaya Trail in Orlando, Florida. The UTM coordinates of the existing facility are Zone 17, 483.6 kilometers (km) East, and 3151.1 km North Latitude is: 28° 29’ 17” North; and, Longitude is: 81° 10’ 03” West.

This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions); and Section 4 (Appendices). Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit.

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 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 not 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

David L. Read, P.E.
2015.02.11
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for: Jeffery F. Koerner, Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Air Permit package 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 the date indicated below to the following persons.

Mr. Chip Merriam, VP, OUC: cmerriam@ouc.com
Mr. David Baez, OUC: dbaez@ouc.com
Mr. Scott Osbourn, P.E., ERM: scott.osbourn@erm.com
Mr. Tom Lubozynski, DEP CD: tom.lubozynski@dep.state.fl.us
Mr. Justin Green, DEP Siting Office: justin.b.green@dep.state.fl.us
Ms. Alisa Coe, Earth Justice: acoe@earthjustice.org
Ms. Lorinda Shepherd, EPA Region 4: shephard.lorinda@epa.gov
Ms. Heather Ceron, EPA Region 4: ceron.heather@epa.gov
Ms. Lynn Scearce, DEP OPC: lynn.scearce@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.

Lynn Scearce

2015.02.11
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FACILITY DESCRIPTION

The Orlando Utilities Commission (OUC) Stanton Energy Center is a nominal 1,876 megawatt (MW) electric generation facility. This facility consists of: two fossil fuel fired steam electrical generating units (Units 1and 2); two combined cycle combustion turbine-electrical generators (Units A and B); solid fuels, fly ash, limestone, gypsum, slag, bottom ash storage and handling facilities; and, fuel oil storage tanks. Also included at the facility are miscellaneous unregulated/insignificant emissions units and/or activities.

PROPOSED PROJECT

OUC proposes to install and operate several pollutant reduction systems, including: FLGR systems on Units 1 and 2 to reduce NOx emissions; upgrades to the wet FGD scrubber system on Unit 2 to reduce SO_2 emissions; chemical spray technology based on spray application of halogen-based additives such as calcium bromide ($CaBr_2$) into the coal feeder and sodium hydrosulfide (NaHS) into the wet FGD system; and a portable ACI system. The portable ACI system will be used in combination with chemical spray technology to mitigate mercury emissions. The proposed portable ACI system may be used on either Unit 1 or Unit 2 as needed.

This project affects the following emissions units:

Facility ID No. 0950137

E.U. No.	Emission Unit Description
001	Fossil Fuel Fired Steam Generator No. 1
002	Fossil Fuel Fired Steam Generator No. 2

FACILITY REGULATORY CLASSIFICATION

- The facility is a major source of hazardous air pollutants (HAP).
- The facility operates 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, Florida Administrative Code (F.A.C).
- The facility is a Prevention of Significant Deterioration (PSD) major stationary source of air pollution in accordance with Rule 62-212.400, F.A.C.
- The facility operates units subject to the New Source Performance Standards (NSPS) of Title 40 Code of Federal Regulations (CFR) Part 60.
- The facility operates units subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR Part 63, specifically for Units 1 and 2, Subpart UUUUU for Coal- and Oil-Fired Electric Utility Steam Generating Units.
- Units 1 and 2 are subject to the Federal Cross State Air Pollution Rule (CSAPR).

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The permitting authority for this project is the Office of Permitting and Compliance in the Division of Air Resource Management of the Department of Environmental Protection (Department). The Office of Permitting and Compliance mailing address is 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Department's Central District Office. The mailing address and phone number of the Central District Office are: Department of Environmental Protection, Central District Office, 3319 Maguire Boulevard, Suite 232, Orlando Florida 32803-3767. Telephone: (407) 897-4100. Fax: (407) 412-0455

3. Appendices: The following Appendices are attached as a 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. Construction and Expiration: The expiration date shown on the first page of this permit provides time to complete the physical construction activities authorized by this permit, complete any necessary compliance testing, and obtain an operation permit. Notwithstanding this expiration date, all specific emissions limitations and operating requirements established by this permit shall remain in effect until the facility or emissions unit is permanently shut down. For good cause, the permittee may request that that a permit be extended. Pursuant to Rule 62-4.080(3), F.A.C., such a request shall be submitted to the Permitting Authority in writing before the permit expires. [Rules 62-4.070(4), 62-4.080 & 62-210.300(1), F.A.C.]

8. Existing Permits: This permit does not authorize any new construction or increases in allowable operating limitations or emissions limits. This permit supplements all existing valid air permits. Except as specified in this permit, the permittee shall continue to comply with all applicable conditions from valid air construction and operation permits. [Rule 62-4.070(3), F.A.C.]

9. Application for Title V Permit: This permit authorizes construction of the permitted emissions unit 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 air 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.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. E.U. No's 001 and 002: Fossil Fuel Fired Steam Generator

This section of the permit addresses the following emissions units:

E.U. No.	Emission Unit Description
001	Fossil Fuel Fired Steam Generator No. 1
002	Fossil Fuel Fired Steam Generator No. 1

Units 1 and 2 fire coal and No. 6 fuel oil, and have a combined electrical generating output of 936 MW. Unit 1 began operation in 1987 and Unit 2 began operation in 1996. Units 1 and 2 consist of the following pollution control equipment: NO_X emissions are controlled by low NO_X burners (LNB), over fire air (OFA) systems and selective catalytic reduction (SCR) systems; PM emissions are controlled by dry electrostatic precipitators (ESP); SO_2 emissions are controlled by FGD scrubber systems. These units are equipped with continuous opacity monitoring systems (COMS) and continuous emissions monitoring systems (CEMS) to measure carbon monoxide (CO), NO_X and SO_2.

APPLICABLE STANDARDS AND REGULATIONS

1. Previous Conditions: Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. The requirements of this permit are in addition to and supplement any other permits. [Rule 62-210.300, F.A.C.]

2. Operation Permit: The facility is subject to all of the requirements specified in Title V Air Operation Permit No. 0950137-044-AV. [Rule 62-4.070(3), F.A.C.]

GENERAL OPERATION REQUIREMENTS

3. 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), F.A.C.]

4. 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 owner or operator shall notify the Department as soon as possible, but at least within one (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the 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 and the regulations. [Rule 62-4.130, F.A.C.]

5. Operating Procedures: Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. [Rule 62-4.070(3), F.A.C.]

6. Circumvention: No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]

EQUIPMENT AND CONTROL TECHNOLOGY

7. Fuel Lean Gas Reburn (FLGR) Systems: The permittee is authorized to install FLGR systems on Units 1 and 2 as described in the application. The FLGR systems will use natural gas-firing above the OFA zone in each unit of up to 10% of the permitted heat input rate (i.e., nominal 480 million British thermal units per hour on a 4-hour block average). Natural gas will displace coal or other authorized fuels. The heat input rate from the FLGR systems do not increase the maximum heat input rate for either unit. [Application No. 0950137-045-AC and Rule 62-210.200(PTE), F.A.C.]

8. Wet FGD System Upgrades: The permittee is authorized to install some or all of the following equipment for the FGD scrubber system on Unit 2 as described in the application: a new distribution tray or an additional spray level with increased recycle pump capacity; wall rings to direct both flue gas and slurry; and modifications to the spray nozzles, nozzle arrangement and piping. [Application No. 0950137-045-AC]

   {Permitting Note: These upgrades to the wet FGD system on Unit 2 are similar to the upgrades already completed on Unit 1.}

9. Induced Draft Fan: The permittee is authorized to modify the induced draft fan on Unit 2 to increase the fan speed to account for the additional pressure drop caused by the scrubber upgrades described in **Specific Condition 8**. [Application No. 0950137-045-AC]

10. ACI and Chemical Spray Technology: The permittee is authorized to install a portable ACI system for use on either Units 1 or 2. The permittee is authorized to use a chemical spray technology consisting of halogen-based additives such as calcium bromide ($CaBr_2$) into the coal feeder and sodium hydrosulfide (NaHS) or an equivalent sulfide-donating liquid agent, into the recirculating pumps of the wet FGD system for Units 1 and 2. The portable ACI system will be used in combination with chemical spray technology to mitigate mercury emissions. The portable ACI system may be used on either Unit 1 or Unit 2 as needed. [Application No. 0950137-045-AC]

REPORTING AND NOTIFICATION REQUIREMENTS

11. Future Actual Emissions Reporting: The permittee shall maintain and submit to the Department on an annual basis for a period of 5 years from the date the project is completed, information demonstrating in accordance with Rule 62-212.300(1)(e), F.A.C. that this project did not result in an emissions increase of particulate matter from Units 1 and 2 that would equal or exceed the significant emission rate as defined in Rule 62-210.200, F.A.C. The permittee shall follow the emissions computation and reporting procedures in Rule 62-210.370, F.A.C. [Rules 62-212.300(1)(e) and 62-210.370, F.A.C]