FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
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PERMITTEE

City of Gainesville, Gainesville Regional Utilities (GRU)

Authorized Representative:
Mr. John W. Stanton, Assistant General Manager - Energy Supply

Permit No. 0010006-021-AC
Project: Revisions to Previously Issued AC Permits
Deerhaven Generating Station
Alachua County, Florida

PROJECT

This is the final air construction permit, which authorizes revisions to the previously issued air construction (AC) permits, Permit Nos. 0010006-005-AC & 0010006-009-AC (Project). This facility is an existing electrical generation plant categorized under Standard Industrial Classification No. 4911. This existing plant is located in in Alachua County at 10001 NW 13th Street, Gainesville, Florida; UTM Coordinates are Zone 17, 365.70 East and 3,292.60 North. Latitude is: 29° 45′ 30" North; and, Longitude is: 82° 23′ 13" West.

This final permit is organized into the following sections: Section I (General Information), Section II (Administrative Requirements) and Section III (Emission(s) Unit(s) Specific Conditions); and, Section IV (Appendices). Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section IV 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.). 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. A copy of this permit modification shall be filed with the referenced permit and shall become part of the permit.

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.
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for: Jeffery F. Koerner, Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

JFK/dlr/sms

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 with Appendices) 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. John W. Stanton, GRU: stantonjw@gru.com
Ms. Regina Embry, GRU: embryrg@gru.com
Mr. Andrew D. Bass, P.E., ECT: abass@ectinc.com
Mr. Justin B. Green, DEP Siting: justin.b.green@dep.state.fl.us
Mr. Richard Rachal, DEP NED: richard.rachal@dep.state.fl.us
Ms. Ana Oquendo-Vazquez, U.S. EPA Region 4: oquendo.ana@epa.gov
Ms. Natasha Hazziez, U.S. EPA Region 4: hazziez.natasha@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

Lynn Scearce
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FACILITY DESCRIPTION

This existing facility consists of: two steam boilers (Unit Nos. 1 and 2) and associated steam turbines; an NSPS simple cycle combustion turbine (CT No. 3); two unregulated simple cycle combustion turbines (CT Nos. 1 and 2); a recirculating cooling water system; storage and handling facilities for coal, brine salt, fly ash and bottom ash; fuel oil storage tanks; water treatment facilities; a railcar maintenance facility; and, ancillary support equipment.

FACILITY REGULATORY CLASSIFICATION

- Based on the Title V air operation permit renewal application received on May 20, 2014, this facility is a major source of hazardous air pollutants (HAP).
- This facility does operate 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 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400 (PSD), F.A.C.

PROPOSED PROJECT

The applicant applied on May 20, 2014, to the Department for a minor source air construction (AC) permit. The minor source AC permit is for revisions to the previously issued AC permits, Permit Nos. 0010006-005-AC & 0010006-009-AC (Project).

The approved requested revisions are included in this permit.

This project will consist of the following emissions units (E.U.):

Facility ID No. 0010006	
E.U. ID No.	**E.U. Brief Description**
005	Boiler No. 2

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Minor Source Air Construction Permit Application received on May 20, 2014 (complete).

SECTION II. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The permitting authority for this project is the Office of Permitting and Compliance, Division of Air Resource Management, Florida Department of Environmental Protection (Department). The mailing address for the Office of Permitting and Compliance 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 Northeast District Office, 7777 Baymeadows Way West, Suite 100, Jacksonville, Florida 32256-7590, Telephone: 904/256-1553, Fax: 904/256-1590.

3. Appendices: The following Appendices are attached as a part of this permit: Appendix A (Citation Formats and Glossary of Common Terms); Appendix B (General Conditions); and, Appendix C (Common Conditions).

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 & 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) & 62-212.300(1)(a), F.A.C.]

7. Source Obligation: 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. [Rule 62-212.400(12), F.A.C.]

For simplified reading, the important revisions are emphasized with yellow highlight in this electronic document. ~~Strikethrough~~ is used to denote the deletion of text and double-underlines are used to denote the addition of text.

Permits Being Modified: 0010006-005-AC & 0010006-009-AC
Affected Emissions Units: Boiler No. 2 (E.U. ID Nos. 005)

The monitoring, testing and reporting requirements for SAM emissions from Boiler No. 2 established in Permit Nos. 0010006-005-AC & 0010006-009-AC are no longer required. Therefore, the requirements for the monitoring, testing and reporting requirements for SAM emissions from Boiler No. 2 in the permits are removed/revised as follows:

Steam Turbine Upgrade, Replacement of Superheater and Installation of Selective Catalytic Reduction (SCR), Circulating Dry Scrubber (CDS) and Baghouse Systems Project (Permit Nos. 0010006-005-AC & -009-AC)

…

Air Pollution Control Technologies & Measures

Permit Nos. 0010006-005-AC & -009-AC, Specific Condition 3.5. is revised in its entirety to read as follows:

3.5. Circumvention - Project (Permit Nos. 0010006-005-AC & -009-AC): 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. Operation of the SCR and CDS was not required by Permit Nos. 0010006-005-AC & -009-AC. As necessary, the permittee shall operate the hydrated lime addition system and baghouse for ~~SAM~~SO_2 emissions control to ensure the project (Permit No. 0010006-005-AC) does not result in a PSD-significant emissions increase (7 tons/year) of sulfuric acid mist emissions above baseline actual emissions (49 tons/year). [Permit No. 0010006-021-AC, Specific Condition 3.5.; and, Rules 62-210.650 and 62-212.400(12), (escape Prevention of Significant Deterioration (PSD), F.A.C.]

Operating Requirements

Permit Nos. 0010006-005-AC & -009-AC, Specific Condition 3.6. is removed:

~~3.6. Annual SAM Emissions Projections - Project (Permit Nos. 0010006-005-AC & -009-AC): The permittee had projected that the increase in actual annual emissions of SAM due to the project would not exceed the PSD significance level (i.e., 7 tons/year). The permittee shall demonstrate this by compiling and submitting the reports required by Permit No. 0010006-005-AC. [Permit No. 0010006-005-AC, Specific Condition 3.6.; and, Rules 62-212.300 and 62-210.370, F.A.C.]~~

~~*{Permitting Note: The baseline actual emission of SAM is 49 tons/year.}*~~

Permit No. 0010006-005-AC, Specific Condition 3.7. is removed:

~~3.7. Hydrated Lime Injection for SAM Emissions Control: On an annual basis, the permittee must demonstrate that SAM emissions as a result of the project (Permit No. 0010006-005-AC) do not exceed 7 tons per year above the baseline actual emissions of 49 tons per year. The permittee shall add hydrated lime at a frequency and injection rate for SAM control to satisfy this requirement. The permittee shall adjust the hydrated lime flow rate for the given set of operating conditions based on the most recent correlation curves in a performance test. [Permit No. 0010006-005-AC, Specific Condition 3.7.; and, Rules 62-4.070(3) and 62-212.300(1)(e), F.A.C.]~~

…

Test Methods and Procedures

Permit No. 0010006-005-AC, Specific Condition 3.11. is removed:

~~3.11. Annual Tests - Hydrated Lime Injection for SAM Emissions Control: During each federal fiscal year, the permittee shall conduct performance tests to determine the SAM emission rates and adjust the lime injection rates as necessary. The Department may re-evaluate this requirement based on the results of the initial testing. [Permit No. 0010006-005-AC, Specific Condition 3.11.; and, Rules 62-4.070(3) and 62-212.300(1)(e), F.A.C.]~~

…

Permit No. 0010006-005-AC, Specific Condition 3.13. is revised in its entirety to read as follows:

3.13. Test Methods: Required tests shall be performed in accordance with the following reference methods or other Department approved methods upon request by permittee:

EPA Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
~~8~~	~~Determination of Sulfuric Acid Mist Emissions~~
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.)

~~Compliance with the sulfuric acid mist emissions can also be determined with the National Council for Air and Stream Improvement (NCASI) Method 8A.~~ Compliance with the ammonia slip limit shall be determined annually using EPA conditional test method (CTM-027), EPA method 320, or other methods approved by the Department. [Permit No. 0010006-021-AC, Specific Condition 3.13.; Rules 62-204.800 and 62-297.100, F.A.C.; and, 40 CFR 60, Appendix A.]

…

Recordkeeping and Reporting Requirements

Permit Nos. 0010006-005-AC & -009-AC, Specific Condition 3.16. is removed:

~~3.16. Test Reports - Project (Permit Nos. 0010006-005-AC & -009-AC): The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Rule 62-297.310, F.A.C. For each sulfuric acid mist test run, the report shall also indicate the lime injection rate for SAM emissions control, unit load, and unit heat input rate. [Permit No. 0010006-005-AC, Specific Condition 3.16.; and, Rule 62-297.310(8), F.A.C.]~~

Permit Nos. 0010006-005-AC & -009-AC, Specific Condition 3.17. is removed:

~~3.17. Operational Data - Project (Permit Nos. 0010006-005-AC & -009-AC): The permittee shall monitor and record the hydrated lime consumption rate for SAM emissions control when the unit is combusting compliance coal (approximately up to 0.8 weight percent sulfur) and the CDS is not fully operational. [Permit No. 0010006-005-AC, Specific Condition 3.17.; and, Rule 62-4.070(3), F.A.C.]~~

Permit Nos. 0010006-005-AC & -009-AC, Specific Condition 3.18. is removed:

~~3.18. Annual SAM Emissions Reports - Project (Permit Nos. 0010006-005-AC & -009-AC): In accordance with Rule 62-212.300(1)(e), F.A.C., the permittee shall comply with the following monitoring, reporting and recordkeeping provisions:~~

~~a. The permittee shall evaluate the SAM emissions using the most reliable information available. On a calendar year basis, the permittee shall calculate and maintain a record of the annual emissions (tons per year) for a period of 5 years following resumption of regular operations after completing construction on the unit's emission control system {all items of the Project were completed by the end of June 2013; therefore, the 5-year period is effective for calendar year (CY) 2014 emissions through CY 2018 emissions}. Emissions shall be computed in accordance with Rule 62-210.370, F.A.C.~~

~~b. Within 60 days after each calendar year following completion of construction, the permittee shall report to the Compliance Authority the annual emissions for the unit for the preceding calendar year. The report shall contain the following:~~

~~a. Name, address and telephone number of the owner or operator of the major stationary source;~~

~~b. Annual emissions as calculated pursuant to subparagraph 62-212.300(1)(e)1., F.A.C.;~~

~~c. If the emissions differ from the preconstruction projection, an explanation as to why there is a difference; and~~

~~d. Any other information that the owner or operator wishes to include in the report.~~

~~c. The information required to be documented and maintained shall be submitted to the Compliance Authority, where it will be available for review to the general public.~~
~~[Permit No. 0010006-005-AC, Specific Condition 3.18.; and, Rule 62-212.300(1)(e), F.A.C.]~~

Permit Nos. 0010006-005-AC & -009-AC, Specific Condition 3.19. is removed:

~~3.19. SAM Emissions Computation and Reporting - Project (Permit Nos. 0010006-005-AC & -009-AC): The permittee shall compute SAM emissions in accordance with the following requirements.~~
~~a. For each year of reporting required, emissions shall be computed based on the controlled and uncontrolled emissions factors determined during the required annual emissions test. 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. With appropriate supporting test data, multiple emission factors may 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.~~
~~c. The permittee shall compute emissions by multiplying the appropriate controlled or uncontrolled emission factor by the annual heat input rate for the period over which the emissions are computed. The uncontrolled emissions factor shall be used if the minimum lime injection rate established for the latest test is not met.~~
~~d. The permittee 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 or Compliance Authority for any regulatory purpose.~~
~~[Permit No. 0010006-005-AC, Specific Condition 3.19; and, Rule 62-210.370, F.A.C.]~~

…

Permit Nos. 0010006-005-AC & -009-AC, Specific Condition 2.7. is removed:

~~2.7 Source Obligation - Project (Permit Nos. 0010006-005-AC & -009-AC): 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 increasing 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 has not yet commenced on the source or modification. [Permit No. 0010006-005-AC, Specific Condition 2.7.; and, Rule 62-212.400(12)(c), (escape Prevention of Significant Deterioration (PSD), F.A.C.]~~

The requirement for the "Transfer Pt. IDs" (transfer points) to be fully enclosed as the applicant indicated is established in the AC permit as follows:

This section of the permit addresses the following emissions unit.

E.U. ID No.	Brief Description
007	Coal Handling and Storage Activities

This emissions unit includes the following:

Source Description	Transfer Pt. ID	Emission Type
Coal Handling - Railcar Unloading; Bottom Discharge	CH-001	Fugitive (F)
Coal Handling - Belt Conveyor 2 to Belt Conveyor 3A	CH-002	F
Coal Handling - Belt Conveyor 2 to Belt Conveyor 3B	CH-003	F
Coal Handling - Belt Conveyor 3A to Storage Pile	CH-004	F
Coal Handling - Belt Conveyor 3B to Storage Pile	CH-005	F
Coal Storage - Ready Storage Pile	CH-006	F
Coal Storage - Episodic Storage Pile	CH-007	F
Coal Storage - Main Storage Pile	CH-008	F
Coal Handling - Dozer Operations on Storage Pile	CH-009	F

Coal Handling - Crusher Building	CH-010	F
Coal Handling - Coal Bunker Building	CH-011	F
Coal Handling - Belt Conveyor 4A to Surge Bin		
Coal Handling - Crusher Building: Crusher Feeder to Crusher		
Coal Handling - Crusher Building: Crusher to Belt Conveyor		
Coal Handling - Belt Conveyor 5A to Belt Conveyor 6A		
Coal Handling - Coal Bunker Building: Belt Conveyor 6A to Bunkers		

EQUIPMENT SPECIFICATIONS

1. Equipment: The "Transfer Pt. ID's" (transfer points) identified as CH-001 - CH-011 shall be fully enclosed. [Application No. 0010006-021-AC; Rule 62-210.200(PTE), F.A.C.; Applicant Request.]