



**FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION**
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PERMITTEE

City of Gainesville
Gainesville Regional Utilities (GRU)
10001 NW 13th Street
Gainesville, FL 32614

Permit No. 0010006-020-AC
Deerhaven Generating Station
Project: Peaking/Intermediate Load Generation

Expires: April 9, 2019
Alachua County

Authorized Representative:

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

PROJECT

This is the final air construction permit, which authorizes peaking/intermediate load generation at the Deerhaven Generating Station.

The proposed work will be conducted at GRU's Deerhaven Generating Station, which is an existing electrical generation plant categorized under Standard Industrial Classification Number (No.) 4911. The existing facility is located in Alachua County at 10001 NW 13th Street in Gainesville, Florida. The UTM Coordinates are: Zone 17, 365.70kilometers (km) East and 3,292.60 km North. Latitude is: 29° 45' 30" North; and, Longitude is: 82° 23' 13" 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 CF of Section 4 of this permit. As noted in the Final Determination provided with this final permit, only minor changes and clarifications were made to the draft 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

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

JFK/sa/sms

PERMIT

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. John W. Stanton, GRU: stantonjw@gru.com
Mr. Robert W. Klemans, P.E., GRU: klemansrw@gru.com
Ms. Regina Embry, GRU: embryrg@gru.com
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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.

SECTION 1. GENERAL INFORMATION

FACILITY DESCRIPTION

The *existing* facility consists of the following emissions units (E.U.):

Facility ID No. 0010006	
E.U. ID No.	E.U. Brief Description
003	Boiler No. 1 (75 MW)
005	Boiler No. 2 (251 MW)
006	Combustion Turbine No. 3 (74 MW)
007	Coal Handling and Storage Activities
001	Combustion Turbine No. 1 (20 MW)
002	Combustion Turbine No. 2 (20 MW)
008	Fly ash and bottom ash, soda ash, salt brine, urea, and lime storage and handling, and water and wastewater treatment systems
009	Stationary Reciprocating Internal Combustion Engine (1,100 hp)

PROPOSED PROJECT

The applicant applied on December 12, 2013, to the Department for a minor source air construction permit. The minor source air construction permit is for peaking/intermediate load generation at the Deerhaven Generating Station.

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 (251 MW)
010	Peaking/Intermediate Load Generation (~50 MW) Either Simple-Cycle Combustion Turbines (SCCTs) or Stationary Spark Ignition Reciprocating Internal Combustion Engines (SI-RICE)

“TBD” indicates to be determined when the final permit is issued.

FACILITY REGULATORY CLASSIFICATION

- The existing facility is a major source of HAP.
- The existing facility is subject to the acid rain provisions of the Clean Air Act (CAA).
- The existing facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The existing facility is a major stationary source in accordance with Rule 62-212.400 (PSD), F.A.C.
- The proposed project is not a modification of a major stationary source in accordance with Rule 62-212.400 (PSD), F.A.C.
- The proposed project is subject to New Source Performance Standards (NSPS) under Section 111 of the CAA and National Emissions Standards for Hazardous Air Pollutants (NESHAP) under Section 112 of the CAA which are incorporated by reference in Chapter 62-204.800, F.A.C.

SECTION 2. 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 at: 8800 Baymeadows Way West, Suite 100, Jacksonville, FL 32256-7590, Phone: (904) 256-1700, Fax: (904) 256-1588.
3. Appendices: The following Appendices are attached as a part of this permit and the permittee must comply with the requirements of the appendices:
 - Appendix A Identification of General Provisions - NSPS 40 CFR 60, Subpart A;
 - Appendix A1 General Provisions - NESHAP 40 CFR 63, Subpart A;
 - Appendix CC Common Conditions;
 - Appendix CF Citation Formats and Glossary of Common Terms;
 - Appendix CTR Common Testing Requirements;
 - Appendix GC General Conditions;
 - Appendix JJJJ NSPS 40 CFR 60, Subpart JJJJ - Stationary Spark Ignition Internal Combustion Engines;
 - Appendix KKKK NSPS 40 CFR 60, Subpart KKKK - Standards of Performance for Stationary Combustion Turbines;
 - Appendix YYYYY NESHAP 40 CFR 63, Subpart YYYYY - Standards of Performance for Stationary Combustion Turbines; and,
 - Appendix ZZZZ NESHAP 40 CFR 63, Subpart ZZZZ - Stationary Reciprocating Internal Combustion Engines (RICE).
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: No emissions unit 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.]
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. [Rule 62-212.400(12), F.A.C.]

SECTION 2. ADMINISTRATIVE REQUIREMENTS

8. Title V Permit: This permit authorizes specific modifications and/or new construction on the affected emissions units as well as initial operation to determine compliance with conditions of this permit. A Title V operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after completing the required work and 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 Southeast District of DEP. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]
9. Objectionable Odors Prohibited: No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320(2), F.A.C.]
{Note: An objectionable odor is defined in Rule 62-210.200(Definitions), F.A.C., as 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.}
10. Unconfined Emissions of Particulate Matter: No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter. General reasonable precautions include the following: a. Paving and maintenance of roads, parking areas and yards; b. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing; c. Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities; d. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent re-entrainment, and from buildings or work areas to prevent particulates from becoming airborne; e. Landscaping or planting of vegetation; f. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter; g. Confining abrasive blasting where possible; and h. Enclosure or covering of conveyor systems.
[Rule 62-296.320(4)(c), F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Project Conditions (E.U. ID No. 010)

This section applies to both the Simple-Cycle Combustion Turbines (SCCTs) and the Stationary Spark Ignition Reciprocating Internal Combustion Engines (SI-RICE).

This section of the permit addresses the following emissions unit.

E.U. ID No.	E.U. Brief Descriptions
010	Peaking/Intermediate Load Generation (~50 MW) <u>Either</u> Simple-Cycle Combustion Turbines (SCCTs) <u>or</u> Stationary Spark Ignition Reciprocating Internal Combustion Engines (SI-RICE)

This permit is for the peaking/intermediate load generation of about 50 megawatts (MW) from either aeroderivative-type SCCTs or SI-RICE.

Air pollutant emission controls are expected to be dry-low NOx (DLN) combustors for the SCCTs and advanced four-stroke lean burn (4SLB) combustion design & oxidation catalyst for the RICE technology to reduce CO, VOC and NOx emissions. Available NOx credits from the Boiler 2 will also be used to keep NOx emissions below the PSD SER threshold for NOx. SO2, SAM and PM (PM, PM10 and PM2.5) emissions will be controlled by the use of low ash, low sulfur pipeline-quality natural gas.

The following conditions apply to the SCCTs or the SI-RICE electrical generation technology whichever the permittee elects to construct.

PROJECT CONDITIONS

1. Authorization: This permit authorizes peaking/intermediate load generation of about 50 megawatts (MW) from either aeroderivative-type Simple-Cycle Combustion Turbines (SCCTs) or Stationary Spark Ignition Reciprocating Internal Combustion Engines (SI-RICE). [Application No. 0010006-020-AC; Applicant Request; and, Rules 62-4.160(2) and 62-212.400(12), *Source Obligation - escape-PSD*, F.A.C.]
2. Methods of Operation - Fuel: The electrical generation technology authorized to be constructed under this project shall be fired exclusively by pipeline-quality natural gas. SO2, SAM and PM (PM, PM10 and PM2.5) emissions are controlled by this restriction on fuel quality. [Application No. 0010006-020-AC; Applicant Request; and, Rules 62-4.160(2) and 62-212.400(12), *Source Obligation - escape-PSD*, F.A.C.]
3. Electrical Generation Technology Selected Notification: The permittee shall inform the Department upon selection of the specific electrical generation technology to be constructed under this project, i.e., either SCCTs or SI-RICE. [Application No. 0010006-020-AC; and, Applicant Request.]
4. Electrical Generation Technology Selected Information: The permittee shall provide detailed information on the specific electrical generation technology selected as soon as it becomes available. The details shall include but not be limited to the specific information typically provided in an air permit application like the number of units, e.g., number of SCCTs or number of SI-RICE, manufacturer information (Make, Model No., etc.), actual design heat input to each SCCT in MMBtu/hour, actual design horsepower for the SI-RICE, actual process/operation diagram for the electrical generation technology selected, facility (plant) layout showing where the equipment will be installed if different from the application submitted, description of the air pollution control measures & technology selected, stack information (height, diameter, stack gas flow rate & temperature, etc.). [Application No. 0010006-020-AC; and, Applicant Request.]

COMPLIANCE DEMONSTRATION (TESTING)

5. Compliance - SO2: Compliance with the fuel sulfur limit {2.0 gr S/100 scf of natural gas} for the pipeline-quality natural gas shall be demonstrated by fuel analysis, recordkeeping and reporting. [Rules 62-4.070(1)&(3), *Reasonable Assurance*, and 62-4.160(15), F.A.C.]

RECORDS & REPORTS

6. Fuel Sulfur Records: The permittee shall demonstrate compliance with the fuel sulfur limit specified in this permit by maintaining the following records of the sulfur contents. Compliance with the fuel sulfur limit for

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Project Conditions (E.U. ID No. 010)

the pipeline-quality natural gas shall be demonstrated by keeping reports obtained from the vendor indicating the average sulfur content of the natural gas being supplied from the pipeline for each month of operation. Methods for determining the sulfur content of the natural gas shall be ASTM methods D4084-82, D4468-85, D5504-01, D6228-98 and D6667-01, D3246-81 or more recent versions. The above methods shall be used to determine the fuel sulfur content in conjunction with the provisions of 40 CFR 75 Appendix D. [Rules 62-4.070(1)&(3), *Reasonable Assurance*, and 62-4.160(15), F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

B. Simple-Cycle Combustion Turbines (SCCTs) (E.U. ID No. 010)

SCCTs Option

This permit authorizes peaking/intermediate load generation of about 50 megawatts (MW) from either aeroderivative-type SCCTs or SI-RICE.

This subsection of the permit addresses the SCCTs option. If the permittee elects this option, everything in this subsection applies in addition to subsection A.

E.U. ID No.	E.U. Brief Descriptions
010	Simple-Cycle Combustion Turbines (SCCTs)

NSPS AND NESHAP APPLICABILITY

NSPS 40 CFR 60 Subpart A & Subpart KKKK Requirements

1. NSPS Requirements - Subpart A: The SCCTs shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:
 - 40 CFR 60.7, Notification and Recordkeeping
 - 40 CFR 60.8, Performance Tests
 - 40 CFR 60.11, Compliance with Standards and Maintenance Requirements
 - 40 CFR 60.12, Circumvention
 - 40 CFR 60.13, Monitoring Requirements
 - 40 CFR 60.19, General Notification and Reporting Requirements,which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C.; except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. The SCCTs shall comply with all applicable provisions of **Appendix 40 CFR 60 Subpart A**, which includes applicable requirements that apply in general to all emission units regulated under 40 CFR 60, Subpart A. [Rule 62-204.800(8)(d), F.A.C.]
2. NSPS Requirements - Subpart KKKK: Except as otherwise provided in this permit, these SCCTs shall comply with all applicable requirements of 40 CFR 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines, which have been adopted by reference in Rule 62-204.800(8)(b), F.A.C. These emissions units shall comply with **Appendix 40 CFR 60 Subpart KKKK**. [Rule 62-204.800(8)(b)81., F.A.C.]

NESHAP 40 CFR 63 Subpart A & Subpart YYYY Requirements

3. NESHAP 40 CFR 63 Requirements - Subpart A: These SCCTs shall comply with all applicable requirements of 40 CFR 63, Subpart A, General Provisions, which have been adopted by reference in Rule 62-204.800(11)(d)1., F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 63.5(e), 40 CFR 63.5(f), 40 CFR 63.6(g), 40 CFR 63.6(h)(9), 40 CFR 63.6(j), 40 CFR 63.13, and 40 CFR 63.14. These SCCTs shall comply with **Appendix 40 CFR 63 Subpart A**. [Rule 62-204.800(11)(d)1., F.A.C.]
4. NESHAP 40 CFR 63 Requirements - Subpart YYYY: Except as otherwise provided in this permit, these SCCTs shall comply with all applicable requirements of 40 CFR 63, Subpart YYYY, National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines, which have been adopted by reference in Rule 62-204.800(11)(b)81., F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 63.6170(c)(1) through (5). These SCCTs shall comply with **Appendix 40 CFR 63 Subpart YYYY**. These SCCTs need not comply with any other requirement of 40 CFR 63, Subpart YYYY until U.S. EPA takes final action to require compliance and publishes a document in the federal register. [Rule 62-204.800(11)(b)81., F.A.C.]

EQUIPMENT

5. Permitted Capacity: The permittee is authorized to install, tune, operate, and maintain SCCTs with a total maximum design rating of approximately 50 MW power output. The SCCTs will be designed for operation in simple-cycle mode and will have single fuel capability (pipeline-quality natural gas). The total heat input

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

B. Simple-Cycle Combustion Turbines (SCCTs) (E.U. ID No. 010)

to the SCCTs is estimated to be 517 MMBtu/hour based on the total maximum design rating of approximately 50 MW power output.

{Permitting Note: Heat input will vary depending on ambient conditions and the CT characteristics. Compliance with the heat input limit will be demonstrated according to the heat input vs ambient temperature.}

[Application No. 0010006-020-AC; and, Rules 62-4.160(2) and 62-210.200, *Definitions - Potential to Emit (PTE)*, F.A.C.]

CONTROL TECHNOLOGY & MEASURES

6. Combustion Technology: The permittee shall install, operate and maintain a dry-low NOx (DLN) combustion system or its equivalent on each SCCT to control NOx emissions from the CT when firing natural gas. Prior to the initial emissions performance tests required for the SCCT, the DLN combustors and automated gas turbine control system (if applicable) shall be tuned to achieve the permitted levels for NOx. Thereafter, the system shall be maintained and tuned in accordance with the manufacturer's recommendations or determined best practices. [Application No. 0010006-020-AC; and, Rules 62-4.160(2) and 62-210.200, *Definitions - Potential to Emit (PTE)*, F.A.C.]

PERFORMANCE RESTRICTIONS

7. Hours of Operation: The maximum hours of operation for the SCCTs are 2,900 hours per year. [Application No. 0010006-020-AC; Applicant Request; and, Rules 62-210.200, *PTE* and 62-212.400(12), *Source Obligation - escape-PSD*, F.A.C.]
8. Performance Curves: The permittee shall provide manufacturer's performance curves (or equations) that correct CT design heat input rating and operation for site conditions to the Permitting and Compliance Authorities within 45 days of completing the initial compliance testing. Operating data may be adjusted for the appropriate site conditions in accordance with the performance curves and/or equations on file with the Department. [Application No. 0010006-020-AC; and, Rules 62-4.070(1)&(3), *Reasonable Assurance*, and 62-4.160(2), F.A.C.]
9. Simple-Cycle Operation: The CTs shall operate only in simple-cycle mode not to exceed the permitted hours of operation allowed by this permit. This restriction is based on the permittee's request, which formed the basis of the non-PSD applicability which resulted in the emission standards/limits specified in this permit. For any request to convert the SCCTs to combined-cycle operation by installing/connecting to heat recovery steam generators, including changes to the fuel quality or quantity related to combined-cycle conversion which may cause an increase in short or long-term emissions, the permittee may be required to submit a full PSD permit application complete with a proposal of BACT as if the unit(s) had never been built. [Application No. 0010006-020-AC; Applicant Request; and, Rules 62-210.200, *PTE* and 62-212.400(12), *Source Obligation - escape-PSD*, F.A.C.]
10. Operating Procedures: All operators and supervisors shall be properly trained to operate and maintain the combustion turbines and pollution control devices in accordance with the guidelines and procedures established by each equipment manufacturer. The training shall include good operating practices as well as methods of minimizing excess emissions. [Rules 62-4.070(1)&(3), *Reasonable Assurance*, and 62-4.160(2), F.A.C.]

EMISSION STANDARDS & LIMITS

11. Visible Emissions. Visible emissions (VE) from each SCCT shall not be equal to or greater than 20 percent opacity. [Rule 62-296.320(4)(b)1., F.A.C.]
12. Source Obligation - Minor Source Modification Levels - SCCTs: To qualify the project as a minor source modification, air pollutant emissions from the SCCTs shall be designed to be operated at a level no greater than the following air pollutant caps: 99.9 tons per year (TPY) of CO; 39.9 TPY of VOC; and, 57.96 TPY of NOx. Each air pollutant cap represents total (collective) emissions from the SCCTs. Based on the requested

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

B. Simple-Cycle Combustion Turbines (SCCTs) (E.U. ID No. 010)

maximum hours of operation of 2,900 per year for the SCCTs, the equivalent lbs/hour emissions are 68.9 lbs/hour of CO emissions, 27.5 lbs/hour of VOC emissions and 40.0 lbs/hour of NOx emissions.

{Permitting Notes: Continuous compliance with a short-term equivalent value for VOC from the SCCTs of ~0.55 lbs/MW-hr assures compliance with the “lb/hr” & long-term “TPY” caps for VOC emissions established by this permit. Continuous compliance with a short-term equivalent value for CO from the SCCTs of ~1.38 lbs/MW-hr assures compliance with the “lbs/hr” & long-term “TPY” caps for CO emissions established by this permit.}

[Application No. 0010006-020-AC; Applicant Request; and, Rules 62-4.070(1)&(3), Reasonable Assurance, and 62-212.400(12), Source Obligation - escape-PSD, F.A.C.]

13. **Emission Standards & Limits:** The SCCTs shall comply with the following emission standards & limits and demonstrate compliance in accordance with the procedures given in NSPS 40 CFR 60, Subpart KKKK. The averaging period for NOx emissions shall be a 4-hour rolling average.

SCCTs (> 10 MMBtu/hour heat input)	NOx	SO ₂
NSPS 40 CFR 60, Subpart KKKK (construction date after 02/18/2005)	<u>@ CT full load conditions</u> 1.2 lbs/MW-hr ¹ <u>or</u> 25 ppmvd ² @ 15% O ₂	0.90 lb/MW-hr <u>or</u> 0.060 lb/MMBtu <u>and</u> 2.0 gr S/100 scf of natural gas ³ [applicant’s request]
	<u>@ CT load conditions < 75% of peak load</u> 4.7 lbs/MW-hr <u>or</u> 96 ppmvd @ 15% O ₂	
¹ lbs/MW-hr means pounds per megawatt-hour; this standard applies to each SCCT individually. ² ppmvd means parts per million by volume, dry; this standard applies to each SCCT individually. ³ Equivalent to 2.9 lbs/hr.		

{Permitting Note: There are no specific emission standards/limits in the NSPS 40 CFR 60, Subpart KKKK for CO and VOC emissions.}

[Application No. 0010006-020-AC; Applicant Request; and, Rules 62-4.070(1)&(3), Reasonable Assurance, 62-210.200, PTE, and 62-212.400(12), Source Obligation - escape-PSD, F.A.C.; and, 40 CFR 60, Subpart KKKK.]

EXCESS EMISSIONS

The following conditions identified as SIP excess emissions apply only to State Implementation Plan (SIP)-based emission standards. Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP, CAIR or Acid Rain program provision.

14. **SIP 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 two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
15. **SIP Excess Emissions Prohibited:** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
16. **NSPS Excess Emissions:** Excess emissions with regard to the NSPS NOx emission standards/limits are assessed on a 4-hour rolling average basis. [40 CFR 60.4350(g).]
17. **Excess Emissions:** Excess emissions under this permit shall be assessed on the most stringent standards/limits assessed on a 4-hour rolling average basis. Periods when NOx emissions are above the

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

B. Simple-Cycle Combustion Turbines (SCCTs) (E.U. ID No. 010)

standards/limits shall be reported as excess emissions following the format of 40 CFR 60.7(c), Figure 1. [Application No. 0010006-020-AC; Applicant Request; and, Rules 62-4.070(1)&(3), *Reasonable Assurance*, 62-210.200, *PTE*, and 62-212.400(12), *Source Obligation - escape-PSD*, F.A.C.; and, 40 CFR 60, Subpart KKKK.]

18. Excess Emissions by NO_x CEMS. The CEMS for NO_x shall be used to determine periods of excess emissions. An hour of excess emissions shall be any unit operating hour in which the 4-hour rolling average NO_x concentration exceeds the standards/limits and shall be reported as excess emissions in accordance with 40 CFR 60.13 and following the format of 40 CFR 60.7(c); and, a “4-hour rolling average NO_x concentration” is the arithmetic average of the average NO_x concentration measured by the CEMS for a given hour (corrected to 15% O₂) and the three unit operating hour average NO_x concentrations immediately preceding that unit operating hour. Periods of startup, shutdown, malfunction, and load change shall be monitored and recorded. [Application No. 0010006-020-AC; Applicant Request; and, Rules 62-4.070(1)&(3), *Reasonable Assurance*, 62-210.200, *PTE*, and 62-212.400(12), *Source Obligation - escape-PSD*, F.A.C.; and, 40 CFR 60, Subpart KKKK.]
19. Excess NO_x Emissions by CEMS. Excess NO_x emissions resulting from startup, shutdown, malfunction or load change, shall be acceptable 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 two hours in any 24-hour period unless specifically authorized by the Department for a longer duration. [Rule 62-210.700(1), F.A.C.]
20. Best Operational Practices to Minimize Excess Emissions. The permittee shall submit best operational practices to minimize excess emissions during startup, shutdown, malfunction or load change in the Title V air operation permit application. [Application No. 0010006-020-AC; and, Rule 62-210.700(1), F.A.C.]

CONTINUOUS MONITORING REQUIREMENTS

21. CEMS: Subject to the following, the permittee shall install, calibrate, operate, and maintain a CEMS to measure and record the emissions from each SCCT in terms of the applicable emission standards/limits. The monitoring system shall be installed, and functioning within the required performance specifications by the time of the initial compliance demonstration.
 - a. *NO_x Monitor*: Each NO_x monitor shall be certified pursuant to the specifications of 40 CFR 75. Quality assurance procedures shall conform to the requirements of 40 CFR 75. The annual and required RATA tests required for the NO_x monitor shall be performed using EPA Method 20 or 7E in Appendix A of 40 CFR 60.
 - b. *Diluent Monitor*: The oxygen (O₂) or carbon dioxide (CO₂) content of the flue gas shall be monitored at the location where NO_x is monitored to correct the measured emissions rates to 15% O₂. If a CO₂ monitor is installed, the O₂ content of the flue gas shall be calculated using F-factors that are appropriate for the fuel fired. Each monitor shall comply with the performance and quality assurance requirements of 40 CFR 75.[Application No. 0010006-020-AC; Applicant Request; and, Rules 62-4.070(1)&(3), *Reasonable Assurance*, and 62-212.400(12), *Source Obligation - escape-PSD*, F.A.C.; and, 40 CFR 60, Subpart 75.]
22. CEMS Data Requirements: The data collection & exclusion, monitor availability requirements, etc. from Acid Rain, 40 CFR 60, Subpart 75 apply. [Application No. 0010006-020-AC; Applicant Request; and, Rules 62-4.070(1)&(3), *Reasonable Assurance*, and 62-212.400(12), *Source Obligation - escape-PSD*, F.A.C.; and, 40 CFR 60, Subpart 75.]
23. CEMS Data Requirements: No data exclusions are permissible when calculating the 12-month (calendar year) total NO_x emissions for compliance with the NO_x emissions cap. [Application No. 0010006-020-AC; and, Rules 62-4.070(1)&(3), *Reasonable Assurance*, and 62-212.400(12), *Source Obligation - escape-PSD*, F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

B. Simple-Cycle Combustion Turbines (SCCTs) (E.U. ID No. 010)

COMPLIANCE DEMONSTRATION (TESTING)

24. Operating Rate During Testing: Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions 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. [Rule 62-297.310(2), *Operating Rate During Testing*, F.A.C.]
25. Compliance Testing: Data, curves, and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department with the compliance test report. The fuel feed rates and the high heating value of the fuels shall be established during the initial and annual compliance tests. [Rules 62-4.070(1)&(3), *Reasonable Assurance* and 62-297.310(2), *Operating Rate During Testing*, F.A.C.]
26. Compliance - VE: The permittee shall demonstrate initial compliance with the VE standard only; no subsequent testing is required for VE provided the general VE standard is initially met. [Rules 62-4.070(1)&(3), *Reasonable Assurance* and 62-297.310, *Test Frequency*, F.A.C.]
27. Compliance - NOx, CO and VOC: The permittee shall demonstrate initial compliance with the NSPS Subpart KKKK emission standards/limits, the NOx cap and the restricted values (minor source modification levels) for CO and VOC emissions of this permit. Continuous compliance with the short-term NOx standards/limits shall be demonstrated by a certified NOx CEMS. Initial compliance with the short-term CO and VOC standards/limits shall be demonstrated by stack test. Continuous compliance with the short-term CO and VOC standards/limits shall be demonstrated through subsequent annual stack testing. Annual CO stack testing may serve as a surrogate for VOC emissions; no subsequent annual or renewal stack testing is required for VOC emissions provided the VOC standard is initially met. [Application No. 0010006-020-AC; and, Rules 62-4.070(1)&(3), *Reasonable Assurance*, and 62-212.400(12), *Source Obligation, escape-PSD*, F.A.C.]
28. Compliance with NOx Annual Emission Cap: Total emissions of NOx from the SCCTs shall not exceed 57.96 TPY in order to net out of PSD. Annual emissions shall be calculated using the methodology in 40 CFR 75.71 and 40 CFR 75.72 and 40 CFR Part 75, Appendix F, Section 8.4 and shall be reported in the Annual Operating Report (AOR). The owner or operator shall notify the Department if annual emissions exceed the NOx cap based on cumulative calculations which are done each month.
- a. For each calendar month or year, NOx mass emissions (in tons) will be calculated as follows:

$$\text{NOx (in tons)} = (\text{Sum of all hourly NOx mass emissions in lbs for the given time period})/2,000.$$
 [Application No. 0010006-020-AC; and, Rules 62-4.070(1)&(3), *Reasonable Assurance*, and 62-212.400(12), *Source Obligation, escape-PSD*, F.A.C.]

29. Test Methods: Tests shall be performed in accordance with the following reference method(s):

Method(s)	Description of Method(s) and Comment(s)
EPA Methods 1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
EPA Method 3A	Determination of Oxygen (O ₂) and Carbon Dioxide (CO ₂) Concentrations in Emissions from Stationary Sources
EPA Method 7E	Determination of Nitrogen Oxide (NOx) Emissions from Stationary Sources
EPA Method 9	Visual Determination of the Opacity of Emissions (VE)
EPA Method 10	Determination of Carbon Monoxide (CO) Emissions
EPA Method 19	Determination of Sulfur Dioxide (SO ₂) Removal Efficiency and Particulate Matter, SO ₂ , and NOx Emission Rates (Optional F-factor method may be used)

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

B. Simple-Cycle Combustion Turbines (SCCTs) (E.U. ID No. 010)

Method(s)	Description of Method(s) and Comment(s)
	to determine flow rate and gas analysis to calculate mass emissions in lieu of EPA Methods 1-4.)
EPA Method 20	Determination of NO _x , SO ₂ and Diluent Emissions from Stationary Gas Turbines

The above methods are described in Chapter 62-297, F.A.C. and/or 40 CFR 60, Appendix A, and 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. [Chapter 62-297, F.A.C.]

RECORDS & REPORTS

- 30. Compliance Test Reports: A report indicating the results of any required compliance test shall be submitted to the Compliance Authority no later than 45 days after completion of the last test run. The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C. [Rule 62-297.310(8), F.A.C.]
- 31. Recordkeeping - Hours of Operation: To comply with the hours of operation restriction {2,900 hours per year}, the permittee shall keep a record of the hours of operation for the SCCTs. [Rules 62-4.070(1)&(3), *Reasonable Assurance* and 62-212.400(12), *Source Obligation, escape-PSD*, F.A.C.]
- 32. Recordkeeping - NO_x, CO & VOC Emission Caps: Sufficient records shall be maintained to ensure that the total NO_x, CO and VOC emissions from the SCCTs do not exceed the TPY caps of this permit {57.96 TPY of NO_x, 99.9 TPY of CO and 39.9 TPY of VOC}. [Rules 62-4.070(1)&(3), *Reasonable Assurance* and 62-212.400(12), *Source Obligation, escape-PSD*, F.A.C.]
- 33. Reporting - NO_x, CO & VOC Emissions: The permittee shall report the total NO_x, CO and VOC emissions from the SCCTs in TPY in the AOR. [Rules 62-4.070(1)&(3), *Reasonable Assurance* and 62-212.400(12), *Source Obligation, escape-PSD*, F.A.C.]
- 34. 5-Year Emissions Monitoring - PSD Avoidance Requirements:
 - a. Monitoring. 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. The change (proposed project under Permit No. 0010006-020-AC) shall not increase the design capacity of any emissions unit or its potential to emit that PSD pollutant. Emissions shall be computed in accordance with Rule 62-210.370, F.A.C.
 - The Department identified the following PSD pollutants that could increase from this project: **CO**.
 - The permittee shall use the same calculation methodology for emissions before and after the completed project under Permit No. 0010006-020-AC. In summary, the stack testing shall be used for **CO** emissions.
 - b. Reporting. The permittee shall report to the Department by March 1st based on the records required to be generated under subparagraph 62-212.300(1)(e)1., F.A.C., 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 specific dates for commencement of the project and completion of the project;
 - (3) The annual emissions as calculated pursuant to subparagraph 62-212.300(1)(e)1., F.A.C.;
 - (3) If the emissions differ from the preconstruction projection, an explanation as to why there is a difference;
 - (4) Any other information that the owner or operator wishes to include in the report;

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

B. Simple-Cycle Combustion Turbines (SCCTs) (E.U. ID No. 010)

(5) The baseline actual emissions to which the annual emissions were compared to; and,

(6) For the Department identified PSD pollutants: a statement indicating whether or not the applicable PSD significant emission rates (SERs) defined in Rule 62-210.200, F.A.C., were exceeded. If and when a PSD SER is exceeded, the permittee shall submit a PSD permit application with a BACT analysis or if the permittee determines that a PSD permit application with a BACT analysis is not required, the permittee shall provide specific citations as to why the project is exempt from a PSD permit application with a BACT analysis.

c. Recordkeeping. 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.

d. 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 62-4.070(1)&(3), *Reasonable Assurance*, F.A.C.; Rule 62-4.030, *General Prohibition*, F.A.C.; and, Rule 62-4.210, *Construction Permits*, F.A.C.]

35. SIP Excess Emissions from Malfunctions. In the case of excess emissions resulting from malfunctions, each owner or operator 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 Compliance Authority. [Rule 62-210.700(6), F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

C. Stationary Spark Ignition Reciprocating Internal Combustion Engines (SI-RICE) (E.U. ID No. 010)

SI-RICE Option

This permit authorizes peaking/intermediate load generation of about 50 megawatts (MW) from either aeroderivative-type SCCTs or SI-RICE.

This subsection of the permit addresses the SI-RICE option. If the permittee elects this option, everything in this subsection applies in addition to subsection A.

E.U. ID No.	E.U. Brief Descriptions
010	Stationary Spark Ignition Reciprocating Internal Combustion Engines (SI-RICE)

NSPS AND NESHAP APPLICABILITY

1. NSPS Subpart JJJJ Applicability: If the permittee elects to construct SI-RICE as the electrical generation technology, the engines shall comply with applicable provisions of 40 CFR 60, Subpart JJJJ, including emission testing or certification. [40 CFR 60, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.]
2. NESHAP Subpart ZZZZ Applicability: The SI-RICE will be pipeline-quality natural gas fired engines and shall comply with applicable provisions of 40 CFR 63, Subpart ZZZZ. Pursuant to 40 CFR 63.6590(c) the engines must meet the requirements of Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart JJJJ. No further requirements apply for such engines under 40 CFR 63, Subpart ZZZZ. [40 CFR 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE).]

EQUIPMENT

3. Permitted Capacity: The permittee is authorized to install, operate and maintain SI-RICE engines with a total maximum design rating of approximately 50 MW power output. [Application No. 0010006-020-AC; and, Rules 62-4.160(2) and 62-210.200, *Definitions - Potential to Emit (PTE)*, F.A.C.]

CONTROL TECHNOLOGY & MEASURES

4. Combustion Technology: The permittee shall install, operate and maintain advanced four-stroke lean burn (4SLB) combustion technology & oxidation catalysts or their equivalents for the SI-RICE engines to reduce NOx, CO and VOC to meet the emission standards & limits of this permit. [Application No. 0010006-020-AC; and, Rules 62-4.160(2) and 62-210.200, *Definitions - Potential to Emit (PTE)*, F.A.C.]

PERFORMANCE RESTRICTIONS

5. Hours of Operation: The maximum hours of operation for the SI-RICE are 4,500 hours per year. The additional hours of operation for the SI-RICE are needed due to the lower turndowns available and the expected use of the RICE to meet GRU system power demands. [Application No. 0010006-020-AC; and, Applicant Request; Rules 62-210.200, *PTE* and 62-212.400(12), *Source Obligation - escape-PSD*, F.A.C.]

EMISSION STANDARDS & LIMITS

6. Visible Emissions: Visible emissions (VE) from each SI-RICE shall not be equal to or greater than 20 percent opacity. [Rule 62-296.320(4)(b)1., F.A.C.]
7. Source Obligation - Minor Source Modification Levels - SI-RICE: To qualify the project as a minor source modification, air pollutant emissions from the SI-RICE shall be designed to be operated at a level no greater than the following air pollutant caps: 99.9 tons per year (TPY) of CO; 39.9 TPY of VOC; and, 385 TPY of NOx. Each air pollutant cap represents total (collective) emissions from the SI-RICE. Based on the requested maximum hours of operation of 4,500 per year for the SI-RICE, the equivalent lbs/hour emissions are 44.4 lbs/hour of CO emissions, 17.7 lbs/hour of VOC emissions and 170.8 lbs/hour of NOx emissions.

{Permitting Notes: Continuous compliance with the NSPS Subpart JJJJ short-term standard for NOx of 1.0 g/HP-hr assures compliance with the “lbs/hr” & long-term “TPY” caps for NOx emissions established by

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

C. Stationary Spark Ignition Reciprocating Internal Combustion Engines (SI-RICE) (E.U. ID No. 010)

this permit. Continuous compliance with a short-term equivalent value for CO of ~0.38 g/HP-hr assures compliance with the “lbs/hr” & long-term “TPY” caps for CO emissions established by this permit. Continuous compliance with a short-term equivalent value for VOC of ~0.23 g/HP-hr assures compliance with the “lbs/hr” & long-term “TPY” caps for VOC emissions established by this permit.}

[Application No. 0010006-020-AC; Applicant Request; and, Rules 62-4.070(1)&(3), *Reasonable Assurance* and 62-212.400(12), *Source Obligation - escape-PSD*, F.A.C.]

8. **Emission Standards & Limits:** The engines shall comply with the following emission standards & limits and demonstrate compliance in accordance with the procedures given in NSPS 40 CFR 60, Subpart JJJJ.

Engines (≥ 500 HP)	NOx (g/HP-hr)¹	CO (g/HP-hr)	VOC (g/HP-hr)
NSPS 40 CFR 60, Subpart JJJJ (manufacture date of 07/01/2010 and later)	1.0	2.0	0.7

¹ g/HP-hr means grams per horsepower-hour.

[Application No. 0010006-020-AC; 40 CFR 60, Subpart JJJJ; and, Rule 62-210.200, *PTE*, F.A.C.]

COMPLIANCE DEMONSTRATION (TESTING)

9. **Compliance:** The permittee shall demonstrate initial compliance with the NSPS Subpart JJJJ emission standards/limits, the NOx cap and the restricted values (minor source modification levels) for CO and VOC emissions of this permit, whichever are most stringent. Compliance with the NSPS Subpart JJJJ emission standards/limits is required. [Application No. 0010006-020-AC; and, Rules 62-4.070(1)&(3), *Reasonable Assurance* and 62-212.400(12), *Source Obligation, escape-PSD*, F.A.C.]

10. **Compliance - VE:** The permittee shall demonstrate initial compliance with the VE standard only; no subsequent testing is required for VE provided the general VE standard is initially met. [Rules 62-4.070(1)&(3), *Reasonable Assurance* and 62-297.310, *Test Frequency*, F.A.C.]

11. **Compliance Testing - NOx, CO and VOC:** The permittee shall demonstrate continuous compliance with the short-term NOx, CO and VOC emission standards specified in this permit.

Any required stack tests for CO and VOC emissions must show compliance with the lower CO and VOC effective equivalent emissions {~0.38 g/HP-hr for CO emissions and ~0.23 g/HP-hr for VOC emissions} of this minor source permit.

Initial Compliance Testing: Initial compliance shall be demonstrated through stack testing for NOx, CO and VOC emissions. The manufacturer’s initial certification of the engines may be provided to the Department in lieu of initial stack testing. The manufacturer’s initial certification must show compliance with the lower CO and VOC effective emission standards of this minor source permit.

Annual Compliance Testing: Annual CO stack testing is required and may serve as a surrogate for VOC emissions; no subsequent annual or renewal stack testing is required for VOC emissions provided the VOC standard is initially met.

[Rules 62-4.070(1)&(3), *Reasonable Assurance* and 62-297.310, *Test Frequency*, F.A.C.]

12. **Test Methods:** EPA Method 9 shall be used for VE testing. Any NOx, CO and VOC testing shall be performed in accordance with the methods specified in NSPS 40 CFR 60.4244, Subpart JJJ. Methods adopted by reference in Rule 62-204.800, F.A.C., those methods described in Chapter 62-297, F.A.C. and/or 40 CFR 60, Appendix A may be used for testing. No other methods may be used unless prior written approval is received from the Department. [Chapter 62-297, F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

C. Stationary Spark Ignition Reciprocating Internal Combustion Engines (SI-RICE) (E.U. ID No. 010)

RECORDS & REPORTS

13. Recordkeeping - Hours of Operation: To comply with the hours of operation restriction {4,500 hours per year}, the permittee shall keep a record of the hours of operation for the SI-RICE. [Rules 62-4.070(1)&(3), *Reasonable Assurance* and 62-212.400(12), *Source Obligation, escape-PSD*, F.A.C.]
14. Recordkeeping - NO_x, CO & VOC Emission Caps: Sufficient records shall be maintained to ensure that the total NO_x, CO and VOC emissions from the SI-RICE do not exceed the TPY caps of this permit {385 TPY of NO_x, 99.9 TPY of CO and 39.9 TPY of VOC}. [Rules 62-4.070(1)&(3), *Reasonable Assurance* and 62-212.400(12), *Source Obligation, escape-PSD*, F.A.C.]
15. Reporting - NO_x, CO & VOC Emissions: The permittee shall report the total NO_x, CO and VOC emissions from the SI-RICE in TPY in the AOR. [Rules 62-4.070(1)&(3), *Reasonable Assurance* and 62-212.400(12), *Source Obligation, escape-PSD*, F.A.C.]
16. Notification, Recordkeeping and Reporting Requirements: The permittee shall adhere to the compliance testing and certification requirements listed in 40 CFR 60.4243 and maintain records demonstrating fuel usage and quality. [40 CFR 60.4243.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

D. Revision to Federally Enforceable NOx Emissions Cap - Boiler No. 2 (E.U. ID No. 005)

This subsection of the permit addresses the following emissions unit:

E.U. ID No.	Brief Description
005	Boiler No. 2 (251 MW)

This part of the permit addresses revisions to the federally enforceable NOx emissions cap applicable to Boiler No. 2.

Permit Being Modified:	0010006-016-AC
Affected Emissions Unit:	Boiler No. 2 (E.U. ID No. 005)

The affected specific conditions from Permit No. 0010006-016-AC are hereby changed as follows (the remainder of the permit remains unchanged as a result of this permitting action):

Specific Condition 3.A.2.
Specific Condition 3.A.2. is changed in its entirety to read as follows:

{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. }

- 3.A.2. Emissions Caps:** To avoid being subject to the reasonable progress requirements of the Regional Haze State Implementation Plan, the following specific condition is to assure that the Q/D ratio (annual SO₂ emissions in tons / distance from a Class 1 area in kilometers) is less than 50.
- a. NOx emissions from Unit 2 shall not exceed 3,381 tons either 1,302.54 tons with Simple-Cycle Combustion Turbines (SCCTs) electrical generation or 975.50 tons with or Stationary Spark Ignition Reciprocating Internal Combustion Engines (SI-RICE) electrical generation during any calendar year based on data collected by CEMS for all periods of operation including startup, shutdown and malfunction. The original NOx emissions cap of 3,381 tons shall become effective beginning with the calendar year that the Gainesville Renewable Energy Center (“GREC”) (ARMS Facility ID No. 0010131) establishes commercial operation {the GREC boiler began commercial operation on August 16, 2013}. The revised NOx emissions cap {1,302.54/975.50 tons} shall become effective beginning with the calendar year that the SCCTs/SI-RICE commence operation. If more than one SCCT or SI-RICE is installed the revised NOx emissions cap shall become effective upon operation of the first SCCT or SI-RICE.
 - b. SO₂ emissions from Unit 2 shall not exceed 5,500 tons during any calendar year based on data collected by CEMS for all periods of operation including startup, shutdown and malfunction. [Permit No. 0010006-016-AC, Specific Condition 2.2. and Application No. 0010006-020-AC; and, Rule 62-4.070(3), F.A.C.]