



Florida Department of Environmental Protection

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Secretary

August 16, 2007

- CERTIFIED MAIL - RETURN RECEIPT REQUESTED -

Ms. Yolanta E. Jonyas
Gainesville Regional Utilities
Post Office Box 147117
Station A136
Gainesville, Florida 32614-7117

RE: Deerhaven Generating Station
Modification to Conditions of Certification
DEP Case Number PA 74-04H
OGC Case Number 07-1472

FINAL ORDER MODIFYING CONDITIONS OF CERTIFICATION

Dear Ms. Jonyas:

On June 29, 2007, the Department published notice of its intent to issue Permit 0010006-005-AC. On August 13, 2007, the Department issued Final Permit 0010006-005-AC for the Deerhaven Generating Station. Pursuant to 403.516 (1) (b), Florida Statutes ("F.S."), the Department may modify specific Conditions of a Site Certification which are inconsistent with the terms of any federally delegated or approved permit. Such modification(s) may be made without further notice if the matter has been previously noticed under the requirements for any federally delegated or approved permit program. The Conditions of Certification for the Deerhaven Generating Station's Unit No. 2 and CT 3 are hereby modified as follows:

I. Air

The operation of the Gainesville Regional Utilities Deerhaven Generating Station Unit No. 2 shall be in accordance with all applicable provisions of Title V Air Operation Permit 0010006-003-AV, Air Construction Permit 0010006-005-AC (attached as Appendix D) and of any updates or modifications thereto, and of Chapters 62-210 through 62-297, F.A.C. In addition to the foregoing, the Licensee shall comply with the following conditions of certification as indicated.

A.-G. No Change.

H. Deerhaven Combustion Turbine No. 3

Air Construction Permit Number PSD-FL-212 and PSD-FL-212(A) (attached as Appendix A and B) are incorporated by reference herein as part of this Certification. The provisions of Air Construction Permit Number PSD-FL-212 and PSD-FL-212(A) shall be conditions of this certification. The licensee shall comply with the substantive provisions and limitations set forth in Air Construction Permit Number PSD-FL-212 and PSD-FL-212(A) and by Title V Air Operation Permit No 0010006-003-AV (attached as Appendix C) as part of these Conditions of Certification, and as those provisions may be modified in the future by the Department. Such provisions may be modified in the future by the Department. Such provisions shall be fully enforceable as conditions of this certification. Any violation of such provisions shall be a violation of these Conditions of Certification.

~~—————The construction and operation of the Gainesville Regional Utilities (GRU) Deerhaven Combustion Turbine #3 (DHCT3) shall be in accordance with all applicable provisions of Chapters 62-210 through 297 and 62-4, Florida Administrative Code (F.A.C.), and 40 CFR 60, Subpart A, Subpart GG, Appendix A and Appendix B (1993 or most current version). The following emission limitations and conditions reflect the BACT determinations for the DHCT3. In addition to the foregoing, the project shall comply with Air Construction Permit No.: 00100006-004 AC/PSD-FL-212(A) and the following conditions of certification:~~

~~—————1. ———General Operating Requirements~~

~~—————a. ———The maximum heat input rates, based on high heating values of each fuel, to the DHCT3 and at ISO conditions (i.e., 59° F, 60% relative humidity and 101.3 kilopascals pressure), shall not exceed 971.1 MMBTU/hr, while firing natural gas, nor 990.6 MMBTU/hr, while firing fuel oil. Heat input will vary depending on ambient conditions and the DHCT3 characteristics. Manufacturer's curves or equations for correction to other ambient conditions shall be provided to the Department of Environmental Protection (DEP) at least 90 days before initial compliance testing.~~

~~—————b. ———The DHCT3 is allowed to operate up to 3900 hours per year, but not to exceed 2000 hours while firing fuel oil.~~

~~—————c. ———Only natural gas (NG) and/or fuel oils (Nos. 1 or 2) shall be fired in the combustion turbine. The maximum sulfur content of the fuel oil shall not exceed 0.05 percent, by weight. GRU has established that there is approximately 55 hours of full load operation of fuel oil, which contains nominally 0.25% sulfur content, by weight, remaining in the fuel storage tank. GRU will be allowed to deplete this reserve by firing the fuel oil in the DHCT3. However, all future deliveries of fuel oil for the DHCT3 shall meet the BACT requirement, which limits the fuel oil sulfur content to~~

~~no more than 0.05%, by weight. Fuel sulfur content shall be determined and recorded each time fuel is transferred into the bulk storage tank(s).~~

~~d. 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 pursuant to Rule 62-296.310(3), F.A.C. Unconfined Emissions of Particulate Matter.~~

~~e. Any change in the method of operation, equipment or operating hours, pursuant to Rule 62-210.200, F.A.C., Definitions—Modifications, shall be submitted to the DEP's Bureau of Air Regulation office and Northeast District office.~~

~~2. Emission Limits~~

~~a. The maximum allowable emissions from the DHCT3, when firing natural gas or or distillate fuel oils (Nos.1 or 2), in accordance with the BACT determination, and at 95–100% percent load based on the manufacturer's curves submitted to the DEP, shall not exceed the following limits except during periods of start up, shutdown, load changing, fuel switching and malfunction pursuant to Rule 62-210.700, F.A.C. and the BACT analysis (including the amended BACT):~~

POLLUTANT	FUEL	BACT STANDARD
NO _x	Gas	15 ppmvd @ 15% Oxygen(a)
	Oil	42 ppmvd @ 15% Oxygen(a)
PM ₁₀	Gas	Good combustion; visible emissions shall not exceed 10% opacity (b)
	Oil	Good combustion of low sulfur oil; max.0.05% sulfur, by weight; visible emissions shall not exceed 10% opacity (b)
SO ₂	Gas	Good combustion (b)
	Oil	Good combustion of low sulfur fuel oil: max. 0.05% sulfur content, by weight (b)

H ₂ SO ₄ Mist	Gas	Good combustion (b)
	Oil	Good combustion of low-sulfur fuel oil: max. 0.05% sulfur content, by weight (b)

(a) The averaging time shall be based on the test method.

(b) Compliance shall be demonstrated through combustion of pipeline natural gas and fuel oil sulfur analysis. [PA 74-04; PSD-FL 212; BACT; BACT, as amended; and 0010006-004-AC and PSD-FL 212(A)]

c. The potential emissions projected from the DHCT3 are:

ESTIMATED POTENTIAL EMISSIONS		
Pollutant	Method of Control	TPY **
CO	Good combustion, proper use of water injection system	95.2
VOC	Good combustion	8.7
Mercury	Natural Gas/No. 2 Fuel Oil	0.001
Pb	Natural Gas/No. 2 Fuel Oil	0.0638
Be	Natural Gas/No. 2 Fuel Oil	0.00033

** TPY values are for annual operation reports (AOR) and PSD applicability determinations. These values are based on the DHCT3 operating at full load at ISO for a total of 3900 hours per year, with up to 2000 hours of No. 2 fuel oil fired operation.

3. Compliance Determination

a. The NO_x CEMS shall be used for continuous compliance.

[PSD-FL 212 and PA 74-04; 0010006-004-AC/PSD-FL 212(A)]

b. Notwithstanding the requirements of Rule 62-297.310, F.A.C., the exclusive use of fuel oil with a maximum sulfur content limit of 0.05% or less, by weight, is the method for determining compliance for SO₂, H₂SO₄ mist, and PM₁₀. There is no suitable method for the testing of PM₁₀ from this type of emissions unit, and the SO₂ and H₂SO₄ emissions are clearly limited by the sulfur content of the fuel. Compliance with the SO₂ and sulfuric acid mist emission limits shall be determined by fuel oil analysis using ASTM D2880-71 or D4294 (or equivalent) for the sulfur content of liquid fuels and D1072-80, D3031-81, D4084-82 or D3246-81 (or equivalent) for sulfur content of gaseous fuel. Alternatively, natural gas supplier data for sulfur content may be submitted. However, the applicant is responsible for

ensuring that the procedures above are used for determination of fuel sulfur content. Analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency pursuant to 40 CFR 60.335(e) (1993 or most current version).

_____.c. Pursuant to Rule 62-212.400, F.A.C., the licensee shall install a dry low-NO_x combustor on the DHCT3 for NO_x control when firing natural gas. Control of NO_x when firing No. 2 fuel oil shall be accomplished by water injection.

_____.d. An initial test for CO, concurrent with each NO_x test, is required to confirm that annual potential emissions will not exceed 100 TPY. The NO_x and initial CO test results shall be the average of three valid one-hour runs. The DEP's Northeast District office shall be notified, in writing, at least 30 days prior to the initial compliance tests and at least 15 days before annual compliance test(s). The combustion turbine shall operate between 95% and 100% of maximum capacity for the ambient conditions experienced during compliance test(s). The turbine manufacturer's heat input rates (based on the high heating value of the fuel) vs. ambient temperature curve shall be included with the compliance test results. The fuel feed rates and the high heating value of the fuels shall be established during the initial and annual compliance tests. Compliance test results shall be submitted to the DEP's Northeast District office no later than 45 days after completion of the last test run.

_____.e. Excess NO_x emissions from this turbine resulting from startup, shutdown, malfunction, fuel switching 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 DEP's Bureau of Air Regulation or the Northeast District office for a longer duration. Best operating practices shall be documented in writing and a copy submitted to the DEP's Northeast District office along with the initial compliance test data. The document may be updated as needed with all updates submitted to the DEP's Northeast District office within thirty (30) days of implementation and shall include time limitations on excess emissions caused by turbine startup.

_____.4. Notification, Reporting and Recordkeeping

_____. Notification and recordkeeping shall be in accordance with 40 CFR 60.7 (1993 or most current version). The following protocols shall be submitted to the DEP's Northeast District office for approval:

_____.a. CEMS – If applicable, the Federal Acid Rain Program requirements of 40 CFR 75 shall apply when those requirements become effective in Florida.

~~_____ b. Performance Test Protocol – At least 30 days prior to conducting the initial performance tests required by this permit, the licensee shall submit to the DEP's Northeast District office for their review and approval: a protocol outlining the procedures to be followed; the test methods; and, any differences between the reference methods and the test methods proposed to be used to verify compliance with the conditions of this permit.~~

~~_____ c. All measurements, records, and other data required to be maintained by GRU shall be retained for at least five (5) years following the date on which such measurements, records, or data are recorded. These data shall be made available to the DEP representatives.~~

~~_____ 5. Monitoring Requirements~~

~~_____ a. The licensee shall install, calibrate, maintain, and operate a continuous emission monitor in the stack to measure and record the nitrogen oxides emissions from this source. An hour of excess emissions shall be any unit operating hour in which the 4 hour rolling average NO_x emissions (ppmvd @ 15% oxygen) are above the BACT standards (15/42 gas/oil) shall be reported as excess emissions following the format of 40 CFR 60.7 (1993 or most current version). The continuous emission monitor must comply with Rule 62-297.520, F.A.C.; 40 CFR 60, Appendix F, Quality Assurance Procedures (1993 or most current version) (or other DEP approved QA plan); 40 CFR 60, Appendix B, Performance Specification 2 (1993 or most current version); or, if applicable, 40 CFR 75, Appendix A and Appendix B. Periods of startup, shutdown, fuel switching, malfunction, and load change shall be monitored and recorded. The NO_x CEMS will be used in lieu of the water/fuel monitoring system and fuel bound nitrogen (FBN) monitoring, which are required in accordance with 40 CFR 60, Subpart GG (1993 or most current version), and are used as indicators of compliance with the NO_x standard specified in the subpart. Since the NO_x emission standard from Subpart GG is more than twice the BACT standard, monitoring for emissions in excess of the BACT limits using the NO_x CEMS is more stringent. FBN levels are not required for excess emission reports when excess emissions are reported and based on the stack monitoring system. The calibration of the water/fuel monitoring device required in 40 CFR 60.335(c)(2) (1993 or most current version) will be replaced by certification tests of the NO_x CEMS.~~

~~_____ b. A malfunction means any sudden and unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions and shall be prohibited pursuant to Rule 62-210.700, F.A.C.~~

~~_____ c. The sulfur content of the fuel oil being fired in the combustion turbine shall be determined in accordance with 40 CFR 60.334(b) (1993 or~~

~~most current version). Any request for a future custom monitoring schedule shall be made in writing and directed to the DEP's Bureau of Air Regulation office. Any custom schedule approved by the DEP pursuant to 40 CFR 60.334(b) (1993 or most current version) will be recognized as enforceable provisions of the permit, provided that the holder of this permit demonstrates that the provisions of the schedule will be adequate to assure continuous compliance. The records of natural gas and No. 2 fuel oil usage shall be kept by the company for a five-year period for regulatory agency inspection purposes.~~

~~_____~~ 6. ~~_____~~ Rule Requirements

~~_____~~ a. ~~_____~~ The emission unit shall be in compliance with all applicable provisions of Chapter 403, Florida Statutes, and Chapters 62-4, 204, 210, 212, 296 and 297, F.A.C.

~~_____~~ b. ~~_____~~ The emission unit shall be in compliance with all applicable requirements of 40 CFR 60, Subpart A, Appendix A and Appendix B (1993 or most current version), Subpart GG—Standards of Performance for Stationary Gas Turbines (1993 or most current version), and Rule 62-204.800(7)(a), F.A.C. The Subpart GG requirement to correct test data to ISO conditions applies. However, such correction is not used for compliance determinations with the BACT standard(s). All notifications and reports required by this specific condition shall be submitted to the DEP's Northeast District office.

~~_____~~ c. ~~_____~~ Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements and regulations (Rule 62-210.300, F.A.C.).

~~_____~~ d. ~~_____~~ The emission unit shall be in compliance with all applicable provisions of Rule 62-210.650, F.A.C.: Circumvention; Rule 62-210.700, F.A.C.: Excess Emissions; Rule 62-204.800, F.A.C.: Standards of Performance for New Stationary Sources (NSPS); Chapter 62-297, F.A.C.: Stationary Sources—Emissions Monitoring; and, Rule 62-4.130, F.A.C.: Plant Operation—Problems.

~~_____~~ e. ~~_____~~ If construction does not commence within 18 months of issuance of this permit, the licensee shall obtain from the DEP's Bureau of Air Regulation a review and, if necessary, a modification of the BACT determination and allowable emissions for the unit(s) on which construction has not commenced (40 CFR 52.21(r)(2) (1993 or most current version)).

~~_____~~ f. ~~_____~~ Semiannual excess emission reports, in accordance with 40 CFR 60.7 and 60.334 (1993 or most current version), shall be submitted to the DEP's Northeast District office.

~~_____~~ g. ~~_____~~ Pursuant to Rule 62-210.370(3), F.A.C., Annual Operating Reports, the licensee is required to submit annual reports on the actual operating rates and emissions from this facility. These reports shall include, but are not limited to the

~~following: sulfur content of the fuel being fired, fuel usage, hours of operation, etc. Annual operating reports shall be sent to the DEP's Northeast District office by March 1st of each calendar year.~~

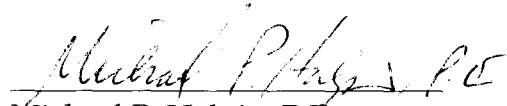
~~_____h. _____ Stack sampling facilities shall be installed in accordance with Rule 62-297.310(6), F.A.C.~~

~~_____7. _____ Modifications~~

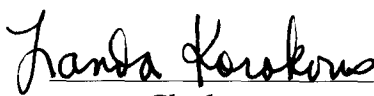
~~_____The licensee shall give written notification to the DEP when there is any modification to this facility/emission unit pursuant to Rule 62-210.200, F.A.C., Definitions—Modifications. This notice shall be submitted sufficiently in advance of any critical date involved to allow sufficient time for review, discussion, and revision of the application/request, if necessary. Such notice shall include, but not be limited to: information describing the precise nature of the change; modification(s) to any emission control system; production capacity of the facility/emissions unit before and after the change; and, the anticipated completion date of the change.~~

Any party to the this Order has a right to seek judicial review of it pursuant to Section 120.68, Florida Statutes by filing a Notice of Appeal, pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department of Environmental Protection in the Office of General Counsel, 3900 Commonwealth Boulevard, M.S. 35, 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 of Appeal must be filed within thirty days from the date this Order is filed with the Clerk of the Department of Environmental Protection.

Executed in Tallahassee, Florida.


Michael P. Halpin, P.E.
Administrator, Siting Coordination Office

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to §120.52
Florida Statutes, with the designated
Department Clerk, receipt of which is
hereby acknowledged.

 8-17-07
Clerk Date

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing Final Order has been sent by email (return receipt requested) or by United States Postal Service to:

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