



# Department of Environmental Protection

Lawton Chiles  
Governor

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Virginia B. Wetherell  
Secretary

September 6, 1996

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Richard Piper  
Environmental Specialist  
Florida Power and Light Company  
Post Office Box 088801  
North Palm Beach, Florida 33408-8801

Dear Mr. Piper:

Re: FPL Martin Plant - PSD Permit Amendment  
Rate of Operation During Compliance Testing  
0850001-002-AC, 0850001-003-AC, PSD-FL-146(A)

The Department has reviewed your request of April 9 to incorporate Guidance DARM-EM-05, "Rate of Operation During Compliance Testing for Combustion Turbines (attached)," to eliminate redundant testing requirements, and to allow flexibility in testing for Volatile Organic Compounds (VOCs) within the PSD permit applicable to the FPL Martin Power Plant. The permit is amended as follows:

Specific Condition 1

**From:**

1. The maximum heat input to each CT shall neither exceed 1966 MMBtu/hr while firing natural gas, nor 1846 MMBtu/hr while firing fuel oil (@ 40°F). For coal derived gas firing the maximum heat input to each CT shall not exceed 2100 MMBtu/hr (@ 75°F). These heat input limitations are subject to change. Any changes shall be provided at least 90 days before commercial operation for each fuel available to the site which a unit is capable of firing, at which time this condition may be modified to reflect those parameters. Each combined cycle unit's fuel consumption shall be continuously determined and recorded.

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To:

1. The maximum heat input to each CT shall neither exceed 1966 MMBtu/hr while firing natural gas, nor 1846 MMBtu/hr while firing fuel oil (@ 40°F). For coal derived gas firing the maximum heat input to each CT shall not exceed 2100 MMBtu/hr (@ 75°F). These heat input limitations are subject to change. Any changes shall be provided at least 90 days before commercial operation for each fuel available to the site which a unit is capable of firing, at which time this condition may be modified to reflect those parameters. Each combined cycle unit's fuel consumption shall be continuously determined and recorded. Testing of emissions shall be conducted with the source operating at capacity. Capacity is defined as 95-100 percent of the manufacturer's rated heat input achievable for the average ambient (or conditioned) air temperature during the test. If it is impracticable to test at capacity, then sources may be tested at less than capacity. In such cases, the entire heat input vs. inlet temperature curves will be adjusted by the increment equal to the difference between the design heat input value and 105 percent of the value reached during the test. 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.

Specific Condition 10.f.

From:

10. Initial (I) compliance tests shall be performed on each combustion turbine using both fuels. The stack test for each turbine shall be performed within 10% of the maximum heat input for the tested operating temperature. Annual (A) compliance tests shall be performed on each combustion turbine with the fuel(s) used for more than 400 hours in the preceding 12-month period. Tests shall be conducted using EPA reference methods in accordance with the November 2, 1989, version of 40 CFR 60 Appendix A:

f. 18 for VOC (I, A)

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**To:**

10. Initial (I) compliance tests shall be performed on each combustion turbine using both fuels. The stack test for each turbine shall be performed within 10% of the maximum heat input for the tested operating temperature. Annual (A) compliance tests shall be performed on each combustion turbine with the fuel(s) used for more than 400 hours in the preceding 12-month period. Tests shall be conducted using EPA reference methods in accordance with the November 2, 1989, version of 40 CFR 60 Appendix A:

f. 18 for VOC (I)

Specific Condition 13

**From:**

13. Continuous emission monitoring shall be installed, operated, and maintained in accordance with 40 CFR 60, Appendix F, for each combined cycle unit to monitor nitrogen oxides.

a. Each continuous emission monitoring system (CEMS) shall meet performance specifications of 40 CFR 60, Appendix B.

b. CEMS data shall be recorded and reported in accordance with Chapter 17-2, F.A.C., and 40 CFR 60. The record shall include periods of startup, shutdown and malfunction.

c. 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.

d. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation and operation of all CEMS.

e. For the purposes of reports required under this certification, excess emissions are defined as any calculated average emission concentration, as determined pursuant to conditions No. II.A.18 herein, which exceeds the applicable emission limits in condition No. II.A.4.

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To:

13. Continuous emission monitoring shall be installed, operated, and maintained in accordance with 40 CFR 75, for each combined cycle unit to monitor nitrogen oxides.

a. Each continuous emission monitoring system (CEMS) shall meet specifications of 40 CFR 75 Appendices A, B, and F.


b. CEMS data shall be recorded and reported in accordance with 40 CFR 75 and 40 CFR 60.7. The excess emission report shall include periods of startup, shutdown and malfunction and shall be based on NO<sub>x</sub> data corrected to 15% O<sub>2</sub> and 40 degrees F.

c. 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.

d. For the purposes of reports required under this certification, excess emissions are defined as any calculated average emission concentration, as determined pursuant to conditions No. II.A.18 herein, which exceeds the applicable emission limits in Condition No. II.A.4.

A copy of this amendment letter shall be attached to and shall become a part of Permit PSD-FL-146.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

*for*   
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Howard L. Rhodes, Director  
Division Air Resources  
Management

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**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this PERMIT AMENDMENT was mailed by certified mail (\*) and copies were mailed by U.S. mail before the close of business on September 6, 1996 to the persons listed:

Mr. Richard Piper, FPL\*  
Ms. Jewell Harper, EPA  
Mr. John Bunyak, NPS  
Mr. Isidore Goldman, DEP  
Mr. Hamilton Oven, PPS

**FILING AND ACKNOWLEDGMENT FILED,**  
on this date, pursuant to Section  
120.52(11), Florida Statutes,  
with the designated Deputy Clerk,  
receipt of which is hereby  
acknowledged.

Ken Jobu                      9-6-96  
(Clerk)                                      (Date)