

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

September 11, 1997

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Mr. W. Jeffrey Pardue, Director
Environmental Service Department
Florida Power Corp.
3201 34th Street South
St. Petersburg, Florida 33733

Re: FPC UF Cogen - AC01-204652/PSD-FL-181(A)
Final Permit Amendment

Dear Mr. Pardue:

The Department has evaluated your request for an increase in the heat input to the combustion turbine for operation at ambient temperatures near 45°F and a corresponding increase in the short term NO_x emission standard (lb/hr). Your request (page 8 of application) and subsequent information submitted on March 7, 1997 indicated that no increase in annual NO_x emissions would occur as a result of this amendment. The Department hereby amends the above referenced permit Specific Conditions 2 and 3 as follows and clarifies that continuous monitors are to be used to quantify the contribution from the combined cycle combustion turbine and duct burner in order to demonstrate compliance with the annual emissions caps for NO_x.

2. Emissions from this facility shall not exceed the limits listed below:

Pollutant	Source	Fuel	Basis of Limit	lbs/hr	tons/yr
NO _x	Turbine	Gas	EBM*: 25 ppmvd @ 15% O ₂	35.9 39.6	142.7
	Turbine	Oil	EBM*: 42 ppmvd @ 15% O ₂	66.3	7.3
	D. Burner	Gas	EBM*: 0.1 lb/MMBtu	18.7	24.6
	Facility	Gas/Oil			194.3
SO ₂	Turbine	Oil	BACT: 0.5% Sulfur Max.	---	---
	Boiler 4	Oil	BACT: 0.5% Sulfur Max.	---	---
	Boiler 5	Oil	BACT: 0.5% Sulfur Max.	---	---
VE	Turbine	Gas/Oil	Equivalent of mass EBM*	10%/20% opacity**	
	D. Burner	Gas	" " "	10% opacity	
	Boiler 4	Gas/Oil	" " "	10%/20% opacity**	
	Boiler 5	Gas/Oil	" " "	10%/20% opacity**	
CO	Turbine	Gas	BACT: 42 ppmvd	38.8	158.0
	Turbine	Oil	EBA***: 75 ppmvd	70.5	7.7
	D. Burner	Gas	BACT: 0.15 lb/MMBtu****	28.1	36.9

* EBM: Established by manufacturer

** Except for one 6-minute period per hour of not more than 27% opacity

*** EBA: Established by applicant

**** BACT limit proposed by applicant in Table A-2 of application

3. Fuel consumption rates and hours of operation for the turbine and duct burner shall not exceed those listed below:

	<u>Natural Gas</u>			<u>No. 2 Fuel Oil</u>		
	<u>M ft³/hr*</u>	<u>MM ft³/yr</u>	<u>hrs/yr*</u>	<u>M gal/hr*</u>	<u>Mgal/yr</u>	<u>hrs/yr*</u>
Turbine	367.9 <u>420.3</u>	2997.2**	8146.8**	2.9	635.1	219.0**
Duct Burner	197.7	519.5	2628.0	0	0	0

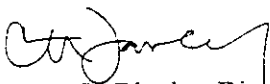
*Based on maximum firing rates. Units may run at lower rates for more hours within annual fuel limits.

**An additional 1.9 hours/yr operation on natural gas will be allowed for each 1.0 hour/yr that fuel oil is not burned (up to 219 x 1.9 hrs/yr), in which case, the emissions limits in Specific Condition No. 2 shall be adjusted accordingly.

Boilers Nos. 4 and 5, firing natural gas or No. 2 fuel oil, may be operated as necessary for backup, as long as total NO_x emissions from the four ~~sources~~ emissions units within the permitted facility do not exceed 194.3 tons NO_x per year. The permittee shall maintain the required fuel use records ~~to demonstrate compliance with this condition~~ and include the total NO_x emission calculation in each annual operating report. For purposes of demonstrating compliance with the annual limits the NO_x emission rate (lbs/MMBtu) from the combustion turbine and duct burner shall be calculated using the NO_x analyzer data and equation F-6 from 40 CFR 75 Appendix F. Hourly heat input rates (MMBtu/hr) shall be used to convert lb/MMBtu of NO_x to lb/hour of NO_x and actual operating hours shall be used to obtain tons per year.

This permit amendment replaces the one issued on March 17, 1997. A copy of this permit amendment shall be filed with the referenced permit and shall become part of the permit. Any party to this order (permit amendment) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; 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 30 (thirty) days from the date this permit amendment is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.


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