



Department of Environmental Protection

ARM-3
10/24/97
10/24/97
Virginia B. Wetherell
Secretary

Lawton Chiles
Governor

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

October 24, 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. James T. Carlton
Authorized Representative
Okeelanta Power Limited Partnership
Post Office Box 8
South Bay, Florida 33493

Re: Permit Modification No. 0990332-006-AC (PSD-FL-196)
74.9 Megawatt Cogeneration Facility

Dear Mr. Carlton:

The Department has reviewed your application dated May 5, 1997 to modify the original construction permit for the Okeelanta Cogeneration Facility. The application is to revise emission limits for carbon monoxide (CO), lead (Pb), mercury (Hg), and sulfur dioxide (SO₂). Construction permit No. AC50-219413 (PSD-FL-196) is hereby modified as follows:

SPECIFIC CONDITIONS NO. 15.

The consumption of No. 2 fuel oil shall be less than 25 percent of the total heat input to each boiler unit in any calendar quarter. Not more than ~~73,714~~ 69,720 tons of coal shall be burned at this facility during any 12-month period. The combined heat input for coal and oil shall be less than 25 percent of the heat input on a calendar quarter basis.

SPECIFIC CONDITION NO. 16.

The permittee shall maintain a daily log of the amounts and types of fuels used. The amount, heating value, beryllium content (coal only), sulfur content, and equivalent SO₂ emission rate (in lbs/MMBtu) of each fuel oil and coal delivery shall be kept in a log for at least two years. For each calendar month, the calculated SO₂, mercury, and lead emissions and 12-month rolling average shall be determined (in tons) and kept in a log.

SPECIFIC CONDITION NO. 20.

Visible emissions from any boiler shall not exceed 20 percent opacity, 6-minute average, except up to 27 percent opacity is allowed for up to 6 minutes in any 1-hour period. Based on a maximum heat input to each boiler of 715 MMBtu/hr for biomass fuels and 490 MMBtu/hr for No. 2 fuel oil and coal, stack emissions shall not exceed any limit shown in the following table:

Pollutant	EMISSION LIMIT (per boiler) ^d						Total ^e Three Boilers (TPY)
	Biomass		No. 2 Oil		Bit. Coal		
	(lb/MMBtu)	(lb/hr)	(lb/MMBtu)	(lb/hr)	(lb/MMBtu)	(lb/hr)	
Particulate (TSP)	0.03	21.5	0.03	14.7	0.03	14.7	172.5
Particulate (PM ₁₀)	0.03	21.5	0.03	14.7	0.03	14.7	172.5
Sulfur Dioxide							
3-hour average					1.2	588.0	
24-hour average	0.10	71.5	0.05	24.5	1.2	588.0	
Annual Average	0.02 ^a				1.2 ^a		1,154.3 ^f
<u>Bagasse</u>	0.02 ^a						
<u>Wood Waste</u>	0.05 ^{a c}						
Nitrogen Oxides							
Annual average	0.15 ^a	107.3 ^a	0.15 ^a	73.5 ^a	0.17 ^a	83.3 ^a	862.5
Carbon Monoxide							
8 ²⁴ -hour average	0.35	250.3	0.2 ^{0.35}	98.0 ^{171.5}	0.2 ^{0.35}	98.0 ^{171.5}	2,012.5
Volatile Organic Compounds	0.06	42.9	0.03	14.7	0.03	14.7	345
Lead	2.5 x 10⁻⁵	0.018	8.9 x 10⁻⁷	0.0004	6.4 x 10 ⁻⁵	0.031	0.17 ^{0.454f}
<u>Bagasse</u>	2.5 x 10 ⁻⁵	0.018					
<u>Wood Waste</u>	1.6x10 ^{-4c}	0.114 ^c					
Mercury			2.4 x 10 ⁻⁶	0.00118	8.4 x 10 ⁻⁶	0.0041	0.0300 ^f
Bagasse	6.3 x 10 ⁻⁶	0.0045 ^b					
<u>Wood Waste</u>	5.43 x 10 ^{-6b}	0.0039 ^b					
	0.29 x 10 ^{-6 e}	0.00021 ^e					
	4.0 x 10 ^{-6 c}	0.0029 ^c					
Beryllium			3.5 x 10 ⁻⁷	0.00017	5.9 x 10 ⁻⁶	0.0029	0.0052
Fluorides			6.3 x 10 ⁻⁶	0.0003	0.024	11.8	21.2
Sulfuric Acid Mist	0.003	2.15	0.0015	0.74	0.036	17.6	34.6

^a Compliance based on 30-day rolling average, per 40 CFR 60. Subpart Da.
^b Emission limit for bagasse. Subject to revision after testing pursuant to Specific Conditions Nos. 24 and 25.
^c Emission limit for wood waste. Subject to revision after testing pursuant to Specific Conditions Nos. 24 and 25.
^d The emission limit shall be prorated when more than one type of fuel is burned in a boiler.
^e Limit heat input from No. 2 fuel to less than 25% 24.9 of total heat input on a calendar quarter basis, coal to 73,714 69,720 tons during any 12-month period, and the combination of oil and coal to less than 25% 24.9 of the total heat input on a calendar quarter basis.
^f Compliance based on a 12-month rolling average for any fuel combination.

The permittee shall comply with the excess emissions rule contained in Rule 62-296.210, F.A.C. In addition, the permittee is allowed excess emissions during startup conditions, provided such excess emissions do not exceed a duration of four hours, and such emissions in excess of two hours do not exceed six (6) times per year.

SPECIFIC CONDITION NO. 21.

- a. Within 60 calendar days after achieving the maximum capacity at which each unit will be operated, but no later than 180 operating days after initial startup, the permittee shall conduct emission compliance tests for all air pollutants listed in Specific Condition No. 20 (including visible emissions). Test shall be conducted during normal operations (i.e., within 10 percent of the heat input). The permittee shall furnish the Department a written report of the results of such performance tests within 45 days of completion of the tests. The performance tests will be conducted in accordance with the provisions of 40 CFR 60.46a.
- b. Compliance with emission limitations for each fuel stated in Specific Condition No. 20 above shall be demonstrated using EPA Methods, as contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources), continuous emissions monitoring data, or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants), or any other method as approved by the Department, in accordance with F.A.C. Rule 62-297.620. A test protocol shall be submitted for approval to the Bureau of Air Regulation at least 90 days prior to testing.

<u>EPA Method*</u>	<u>For Determination of</u>
1	Selection of sample site and velocity traverses.
2	Stack gas flow rate when converting concentrations to or from mass emission limits.
3 or 3A	Gas analysis when needed for calculation of molecular weight or percent O ₂ .
4	Moisture content when converting stack velocity to dry volumetric flow rate for use in converting concentrations in dry gases to or from mass emission limits.
5	Particulate matter concentration and mass emissions.
201 or 201A	PM ₁₀ emissions.
6, 6C, or 19	Sulfur dioxide emissions from stationary sources.
7, or 7E	Nitrogen oxide emissions from stationary sources.
8 (modified)	Sulfuric acid mist. **
9	Visible emission determination of opacity. - At least three one hour runs to be conducted simultaneously with particulate testing. - At least one truck unloading into the mercury reactant storage silo (from start to finish).
10	Carbon monoxide emissions from stationary sources.
12	Determination of inorganic lead emissions from stationary sources.
13A or 13B	Fluoride emissions from stationary sources.
18 or 25	Volatile organic compounds concentration.
101A	Determination of particulate and gaseous mercury emissions.
104	Determination of beryllium emissions from stationary sources.
108	Determination of particulate and gaseous arsenic emissions.
EMTIC Test Method CTM-012.WPF	Chromium and copper emissions.

* Other approved EPA test methods may be substituted for the listed method unless the Department has adopted a specific test method for the air pollutant.

** Test for sulfuric acid mist only required when coal is burned at the facility.

A copy of this permit modification shall be filed with the referenced permit and shall become part of the permit. This permit modification is issued pursuant to Chapter 403, Florida Statutes. Any party to this order (permit) 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 Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.



Howard L. Rhodes, Director
Division of Air Resources
Management

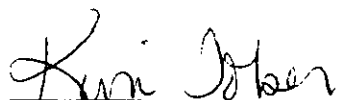
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT MODIFICATION (including the FINAL permit Modification) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 10-24-97 to the person(s) listed:

- Mr. James T. Carlton, Okeelanta Power L.P. *
- Mr. Daniel Thompson, Berger Davis & Singerman *
- Mr. David Buff, Golder Associates
- Mr. Brian Beals, EPA
- Mr. John Bunyak, NPS
- Mr. David Knowles, SD
- Mr. James Koerner, PBCPHU

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.


(Clerk)

10-24-97
(Date)