



Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

June 22, 1999

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. James Meriwether
Environmental Manager
Okeelanta Cogeneration Facility
Post Office Box 9
South Bay, Florida 33493

RE: DEP File No. 0990332-010-AC (PSD-FL-196F)
Permit Modifications

Dear Mr. Meriwether:

This is in response to Golder Associates' letter dated December 14, 1998 and fee received February 2, 1999 requesting changes to the subject construction permit. The Department considered the requests and agrees to modify the permit conditions as indicated below. The request for revising the 0.35 lb CO/MMBtu limit from a 24-hour averaging time to a 30-day rolling average was approved. However, the requested increase to 0.5 lb CO/MMBtu was not granted based on our conclusion from the test data that the longer term average can be met at 0.35 lb/MMBtu. The requested modifications of provisions related to excess emissions and other changes are indicated by the underlined additions.

The permit is hereby modified as shown below. The excess fee paid will be refunded separately.

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							
(Bagasse)	0.02 a				1.2 a		1,154.3 f
(Wood Waste)	0.05a 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

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

Carbon Monoxide 24-hour 30-day rolling avg.	0.35 a	250.3 a	0.35 a	171.5 a	0.35 a	171.5 a	2,012.5
Volatile Organic Compounds	0.06	42.9	0.03	14.7	0.03	14.7	345
Lead (Bagasse)	2.5×10^{-5} b	0.018 b	8.9×10^{-7}	0.0004	6.4×10^{-5}	0.031	0.454 f
" (Wood Waste)	1.6×10^{-4} c	0.114 c					
Mercury (Bagasse)	5.43×10^{-6} b	0.0039 b	2.4×10^{-6}	0.00118	8.4×10^{-6}	0.0041	0.0300 f
" (Wood Waste)	4.0×10^{-6} c	0.0029 c					
Beryllium	---	---	3.5×10^{-7}	0.00017	5.9×10^{-6}	0.0029	0.0052
Fluorides	---	---	6.3×10^{-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

Table Notes:

- a Compliance based on 30-day rolling average, per 40 CFR 60, Subpart Da.

[CO Limit: Although carbon monoxide (CO) emissions are not regulated by NSPS Subpart Da, compliance shall be demonstrated in a similar manner. The CO emissions from each boiler shall not exceed 0.35 pounds per MMBTU based on a 30-day (boiler operating days) rolling average. Compliance with this standard shall be demonstrated by continuous emissions monitoring data. The 30-day rolling average shall be determined by calculating the arithmetic average of all hourly emission rates for 30 successive boiler operating days. The 1-hour averages shall be expressed in lb/MMBTU of heat input and are calculated using at least two valid data points. Calculation of the 30-day rolling average shall consist of at least 18 hours in at least 22 out of 30 successive boiler operating days. If this minimum data requirement cannot be met with a continuous monitoring system, the permittee shall supplement emission data with other monitoring systems approved by the EPA Administrator or the reference methods and procedures as described in 40 CFR 60.47a.]

- b Emission limit for bagasse. Subject to revision after testing pursuant to Specific Condition Nos. 24 and 25.
- c Emission limit for wood waste. Subject to revision after testing pursuant to Specific Condition 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 24.9 of total heat input on a calendar quarter basis, coal to 69,720 tons during any 12-month period, and the combination of oil and coal to less than 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 62-210.700, F.A.C. In addition, the permittee is allowed excess emissions during startup, and shutdown and malfunction in accordance with permit condition No. 21, 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. Periods of startup, shutdown and malfunction shall be defined as:

a. Startup is the commencement of operation of a boiler which has shut down or ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which may result in excess emissions. Periods of startup for each boiler shall end once steam generation reaches 150,000 pounds per hour.

b. Shutdown is the cessation of the operation of a boiler for any purpose after steam generation drops below 150,000 pounds per hour.

c. Malfunction is any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner.

[Rule 62-210.200 (179), (258), (275), F.A.C. and Rule 62-4.070(3), F.A.C.]

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.

<u>EPA Method*</u>	<u>For Determination of</u>
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 .

c. Continuous emission monitoring data required by this permit shall be collected and recorded during all periods of operation including startup, shutdown, and malfunction, except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments. Although recorded, emissions during periods of startup, shutdown and malfunction may be excluded from the averaging calculations required to determine compliance with the emissions standards, not to exceed four (4) hours during startup, four (4) hours during shutdown, nor two (2) hours during malfunction in a 24-hour period. Excess Emissions beyond these periods shall be recorded and included in the averaging calculations required to determine compliance with the emissions standards. The permittee shall submit to the regulating agencies a Quarterly Excess Emissions Report within 30 days of the end of each calendar quarter. The report shall identify the date, time, and description of each startup, shutdown, and malfunction resulting in excess emissions. It shall also identify any steps taken to mitigate emissions during any malfunction as well as any corrective actions taken.

[Air Permit PSD-FL-196; Rule 62-210.700, F.A.C.; 40 CFR 60.8; and 40 CFR 60.46a]

d. Excess emissions resulting from startup, shutdown or malfunction of a boiler shall be permitted for standards based on short-term averaging periods (shorter than 24-hour averages) as specified in this permit, providing:

a. The operators implement best operational practices to minimize emissions, and

b. Excess emissions do not exceed four (4) hours for startup, four (4) hours for shutdown, nor two (2) hours for malfunction in any 24-hour period (day).

Within one (1) working day of excess emissions due to a malfunction, the permittee shall notify the regulating agencies of the date, time, description, steps to taken to minimize emissions, and actions taken to correct the problem.

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. Excess emissions of standards based on long-term averaging periods (24-hour averages or longer) are not permitted because compliance is demonstrated by continuous monitor and provisions of this permit allow exclusion of monitoring data for periods of startup, shutdown, and malfunction.

[Rule 62-210.700, F.A.C.; Rule 62-4.070(3), F.A.C.; 40 CFR 60.8; and 40 CFR 60.46a]

Mr. James Meriwether

June 22, 1999

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This permit is issued pursuant to Chapter 403, Florida Statutes. A copy of this letter shall be filed with the referenced permit and certification and shall become part of the 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 thirty (30) days after this order is filed with the clerk of the Department.

Sincerely,



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 was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 6-24-99 to the person(s) listed:

Mr. James Meriwether, Okeelanta Power Limited Partnership*
Mr. James Stormer, Palm Beach County Health Department
Mr. Phil Barbaccia, SD – DEP
Mr. Gregg Worley, EPA
Mr. John Bunyak, NPS

Clerk Stamp

FILING AND ACKNOWLEDGMENT

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

Keri Jobes
(Clerk)

6-24-99
(Date)

2 333 618 184

US Postal Service
Receipt for Certified Mail

No Insurance Coverage Provided.
Do not use for International Mail (See reverse)

PS Form 3800, April 1995

Sent to		James Meriwether
Street & Number		Okechanta Cosen
Post Office, State, & ZIP Code		South Bay, FL
Postage	\$	
Certified Fee		
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to Whom & Date Delivered		
Return Receipt Showing to Whom, Date, & Addressee's Address		
TOTAL Postage & Fees	\$	
Postmark or Date		6-24-99
		6990332-010 AC
		PSD-FI-196F

Our RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
James Meriwether
Okechanta Cosen Fac.
PO Box 9
South Bay, FL
33493

4a. Article Number
2 333 618 184

4b. Service Type
 Registered Certified
 Express Mail Insured
 Return Receipt for Merchandise COD

7. Date of Delivery
6-30-99

5. Received By: (Print Name)

6. Signature: (Addressee or Agent)
X [Signature]

8. Addressee's Address (Only if requested and fee is paid)

Thank you for using Return Receipt Service.

Florida Department of
Environmental Protection

Memorandum

TO: Howard L. Rhodes

THRU: Clair Fancy ^{for} *smb*
JK AL Linero

FROM: Jeff Koerner *JK*

DATE: June 21, 1999

SUBJECT: Okeelanta Power Limited Partnership
Permit No. 099-0332-010-AC (PSD-FL-196F)
Modification of CO Averaging Period and Excess Emissions Allowed

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Attached for approval and signature is a PSD permit modification to increase the averaging period for CO emissions from 24-hours to 30-days, rolling. The modification also clarifies the allowable periods of excess emissions. The Public Notice requirements were met by publishing in the May 19, 1999 issue of the Palm Beach Post.

On June 17th, the applicant requested several changes to the draft language. As a result, minor revisions were made to the definitions of startup, shutdown, and malfunction.

I recommend your approval and signature.

Attachments

AL/jfk