

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
NOTICE OF FINAL PERMIT AMENDMENT

In the Matter of an  
Application for Permit Amendment

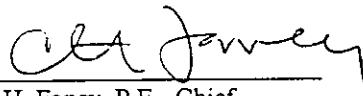
Mr. Dennis Space, General Manager  
Okeelanta Power Limited Partnership  
Post Office Box 8  
South Bay, Florida 33493

DEP File No. 0990332-003-AC  
PSD-FL-196

Enclosed is a letter that amends Permit Number PSD-FL-196. This letter amendment authorizes a performance test while burning Tire Derived Fuel (TDF) in the existing cogeneration plant located near South Bay, Palm Beach County, pursuant to 40 CFR 52.21-Prevention of Significant Deterioration (PSD permit). This permit amendment is issued pursuant to Section 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 14 (fourteen) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

  
C. H. Fancy, P.E., Chief  
Bureau of Air Regulation


**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT AMENDMENT (including the FINAL permit amendment) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 1-22-97 to the person(s) listed:

Mr. Dennis Space, Okeelanta Power LP\*  
Mr. Brian Beals, EPA  
Mr. John Bunyak, NPS  
Mr. David Knowles, SD  
Mr. Jim Stormer, Palm Beach County  
Mr. David Buff, P.E., KBN  
Ms. Kathy Anderson, DEP

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) 1-22-97  
(Date)

## FINAL DETERMINATION

Okeelanta Power Limited Partnership

Amendment of Permit No. AC 0990332-003-AC  
Okeelanta Power Cogeneration Facility

An Intent to Issue an air construction permit amendment for Okeelanta Power Limited Partnership's cogeneration facility located near South Bay, Palm Beach County, Florida was distributed on December 13, 1996. The Notice of Intent was published in the Palm Beach Post on December 24, 1996. Comments were submitted in response to the public notice.

The Department's Bureau of Solid and Hazardous Waste requested additional analysis to the fuel and ash generated by this operation during the test. The proposed amendment was revised to include the additional analysis.

The final action of the Department will be to issue the permit amendment as proposed except for the change noted above.



# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

January 22, 1997

## CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Dennis Space  
General Manager  
Okeelanta Power Limited Partnership  
Post Office Box 8  
South Bay, Florida 33493

Re: Okeelanta Power LP  
TDF Permit Amendment  
AIRS ID No. 0990332-003-AC, PSD-FL-196

Dear Mr. Space:

The Department has reviewed the request from Okeelanta Power Limited Partnership received on May 14, 1996, and the supplementary information dated July 17, and October 8, 1996 concerning the burning of a blend of tire derived fuel (TDF) and biomass in your cogeneration facility located near South Bay, Palm Beach County, Florida.

You are hereby authorized to conduct performance tests on one boiler at this or a similar (Osceola Power LP) facility while it is burning a blend of up to 25 percent TDF (by weight) for the regulated air pollutants and metals for a period not to exceed 60 days, and within 90 days from the first day TDF is burned in the boiler. Test results must include a material balance (fuels, emissions, bottom ash, and fly ash) of the metals in the fuels. All conditions of permit No. AC 50-219413/PSD-FL-196 related to air pollution emission limits and control equipment remain in force during the test burn.

The performance test shall be conducted in order to gather data regarding air pollutant emissions, any operation limitations on burning a blend of up to 25 percent by weight TDF in the boiler, and to determine the metal content in the bottom and fly ash. The test results and any changes to the current request to permanently be allowed to burn TDF in this facility shall be sent to the Department's Bureau of Air Regulation and the Palm Beach County Public Health Unit within 45 days of completion of the tests.

The performance test shall be subject to the following conditions:

1. The permittee shall notify the Palm Beach County Public Health Unit, the DEP South District, and the Bureau of Air Regulation at least one day prior to burning TDF and 15 days prior to commencement of the performance test. A written test report shall be submitted to these offices within 45 days of completion of the last test run.

2. The maximum TDF content of the fuel shall not exceed 25 percent by weight. Performance testing shall be conducted in 60 calendar days and completed within 90 days of when the TDF is first introduced into the boiler.
3. Stack emissions due to TDF firing shall not exceed any limit for coal burning in the construction permit No. PSD-FL-196 for this unit.
4. To provide reasonable assurance that this fuel blend can be burned in compliance with the air regulations, as-burned fuel samples (biomass and TDF), bottom ash, and fly ash shall be collected and analyzed for total metals content (selenium, silver, chromium, copper, arsenic, cadmium, zinc oxide, mercury, lead, and beryllium) throughout the test burn of the blended fuel. Weekly composite of daily samples shall be required as well as analyses of a composite sample collected during the particulate matter tests.

To provide reasonable assurance that the ash generated from this fuel blend can be disposed of in compliance with the solid and hazardous waste regulations, representative samples of the fly and bottom ash generated as the result of burning wood waste and TDF shall be sampled and analyzed in accordance with the requirements set forth in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication SW-846, Third Edition."

- a) Representative samples shall account for variability in both the fly and bottom ash. The US EPA's June 1995 protocol entitled "Guidance For Sampling and Analysis of Municipal Waste Combustion Ash For the Toxicity Characteristic" shall be used as guidance for collecting, handling, storing and analyzing a representative sample.
- b) Representative composite samples of fly and bottom ash shall be analyzed for arsenic, beryllium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc oxide using SW-846 test method 1311 (TCLP) and 3050 (total metals digestion).
- c) A minimum of two composite samples each of fly and bottom ash shall be collected and analyzed at the beginning of the sampling event for organic constituents listed in 40 CFR 261.24 Table 1 using SW-846 test method 1311 (TCLP). If organic constituents are present, then the remainder of the composite samples collected shall be analyzed for organic constituents listed in 40 CFR 261.24 Table 1 using SW-846 test method 1311 (TCLP).
- d) A minimum of two composite samples of each of the fly and bottom ash, shall be collected and analyzed at the beginning of the sampling event for those PCDD/PCDF constituents listed in SW-846 test method §290. The ash samples shall be analyzed using SW-846 test method 8290.
- e) Daily composite samples of the blended fuel, wood waste mixed with TDF, shall be collected during the ash sampling period and analyzed for arsenic, beryllium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc oxide using SW-846 test method 3050. The blended fuel mixture, wood waste and TDF, samples shall be blended and reduced in size to pass through a #60 mesh screen prior to analysis of specific chemicals.

5. A material balance of the metals in the fuel, emissions, bottom ash and fly ash shall be performed and reported based on all test/analytical data.
6. The maximum feed rate of tires to each boiler at the Okeelanta cogeneration plant shall not exceed 21,030 pounds per hour or 25 percent by weight of the total feed rate, whichever is less.
7. Emissions tests shall be conducted and results reported for hydrochloric acid, arsenic, cadmium, chromium, zinc oxide, benzene, PCB, and dioxins/furans.
8. Emissions tests shall be conducted for sulfur dioxide, nitrogen oxides, carbon monoxide, and visible emissions from the boiler during the test burn.
9. Based on the data collected during the test burn, estimate the actual and potential emissions that will occur if the maximum amount of TDF requested is burned in the facility.
10. Any performance tests shall be conducted using EPA Reference Methods, as contained in 40 CFR 60 (Standards of Performance for New Stationary Sources), 40 CFR 61 (National Emission Standards for Hazardous Air Pollutants), and 40 CFR 266, Appendix IX (Multi-metals), or any other method approved by the Department, in writing, in accordance with Chapter 62-297, F.A.C.
11. The existing construction permit is extended until July 1, 1997, to allow time to complete the performance test. If additional time is needed, the permittee shall request an extension of time and provide the Department with documentation of the progress accomplished to date and shall identify the work required to complete the performance test.
12. Daily records (i.e., mass feed rates of each fuel, heat input, steam production, pressure, temperature, MW, fuel input rates, etc.) of the boiler operations when firing the TDF blend during the tests shall be maintained.
13. For rule applicability determination, calculate any change in emissions (lbs/hr and TPY) for all air pollutants that would result from the firing of a blend of TDF compared with presently permitted scenarios.
14. The authorized TDF performance test shall not result in the release of objectionable odors pursuant to Rule 62-296.320(2). F.A.C.
15. Performance testing shall cease as soon as possible if the test boiler operations are not in accordance with the conditions in the air permit No. PSD-FL-196, or this authorization protocol. Performance testing shall not resume until appropriate measures to correct the problem(s) have been implemented.
16. This Department action is only to authorize the TDF blend performance test. Any firing of tire derived fuel beyond the 60 calendar days of testing approved to conduct such tests will be deemed a violation of permit No. PSD-FL-196A.

Mr. Dennis Space  
January 22, 1997  
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17. The Palm Beach County Public Health Unit, the Department's South District, and the Bureau of Air Regulation shall be notified within 5 days, in writing, upon completion of the final test.
18. The testing series shall include emissions test for the maximum TDF blend (25 percent) with the boiler operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the capacity allowed by Permit No. PSD-FL-196.
19. A test protocol, specifying the pollutants to be tested and the sampling and analysis methods, including fuel and ash, shall be submitted to the Bureau of Air Regulation, with copies to the Palm Beach County Public Health Unit and Department's South District, for approval prior to commencement of testing.

This letter must be attached to permit No. PSD-FL-196 and shall become a part of the permit.

Sincerely,




Howard L. Rhodes, Director  
Division of Air Resources  
Management

HLR/wh/t

Fold at line over top of envelope to the right of the return address

Is your RETURN ADDRESS completed on the reverse side?

<b>SENDER:</b> ■ 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): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.	
3. Article Addressed to: Dennis Space, Gen. Mgr. Okelanta Power, LP PO Box 8 South Bay, FL 33493		4a. Article Number P 265 659 149	
		4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD	
		7. Date of Delivery 1/27/97	
5. Received By: (Print Name)		8. Addressee's Address (Only if requested and fee is paid)	
6. Signature (Addressee or Agent) X  Gizella Ambros			

Thank you for using Return Receipt Service.

PS Form 3811, December 1994

Domestic Return Receipt

P 265 659 149

US Postal Service  
**Receipt for Certified Mail**

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

Sent to	Dennis Space
Street & Number	Okelanta
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	PSD-FI-196 1-22-97

PS Form 3800, April 1995

Florida Department of  
Environmental Protection

Memorandum

*al*

TO: Howard L. Rhodes

THRU: Clair Fancy *CF*  
Al Linero *Al Linero*

FROM: Willard Hanks *WH*

DATE: January 17, 1997

SUBJECT: Okeelanta Power LP  
TDF Permit Amendment  
AIRS ID No. 0990332-003-AC, PSD-FL-196

Attached for approval and signature is a letter that will amend construction permit number AC50-2191413/PSD-FL-196 for Okeelanta Power's cogeneration plant located near South Bay, Palm Beach County. The amendments authorize limited performance tests on the facilities while they are burning a blend of tire derived fuel (TDF) and biomass. The information will help us evaluate their request to burn TDF on a permanent basis.

The plant is already permitted to burn bagasse and wood wastes as well as coal. The TDF will be burned in lieu of coal and is not expected to significantly increase emissions compared with burning of coal. This amendment will allow emission and ash analysis data to be gathered while burning a blend of wood chips and tire derived fuel (TDF) to confirm this fuel can be burned in compliance with the existing permit and the Department's regulations. If data collected during the test burn confirms the fuel blend can be burned in compliance with all requirements, the construction permit will be amended again to allow this blended fuel to be burn on a continuous basis. Emission controls consist of electrostatic precipitators for control of particulate matter, selective non-catalytic reduction for nitrogen oxides, and carbon injection for mercury. The test may provide the Department with reasonable assurance that the plant can burn TDF without contravening Department standards, rules or permit conditions.

I recommend your approval and signature of the amendment to allow the test burn of the blended fuel.

CHF/wh

Attachment