

**Golder Associates Inc.**

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April 23, 1997

Mr. Clair Fancy, P.E.  
Chief, Bureau of Air Regulation  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Re: **Okeelanta** Power Limited Partnership (OkPLP) Cogeneration Facility  
Permit Amendment No. 0990332-003-AC, PSD-FL-196A  
Tire-Derived Fuel Permit Amendment

*This is a new  
"amendment" that  
will cost \$50 each  
Fee Request letter will  
go out today & the  
File copy is in your pile  
waiting for green  
cards. Patty  
knows more*

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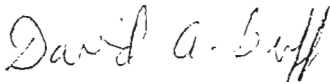
Dear Mr. Fancy:

OkPLP received a permit amendment on January 22, 1997, to allow a test burn of tire-derived fuel (TDF) at one boiler located at either OkPLP or the Osceola Power Limited Partnership (OsPLP) cogeneration facility. Specific Condition (S.C.) 11 of the amendment extends the existing construction permit until July 1, 1997, in order to allow time to complete the test burn. Performance testing is to be conducted for up to 60 calendar days, and within a 90-day period from the time that TDF is first introduced into a boiler, as specified in S.C. 2 and 16.

OkPLP currently plans to begin firing TDF at the OkPLP facility during May. At present, the dates of performance testing cannot be established since the facility must first gain some operating experience with the TDF. Once the facility operators are comfortable with the operations, performance testing will be conducted (after proper notice to the FDEP). Assuming that TDF firing first occurs in May, TDF firing could occur as late as August 31, 1997, depending on plant operations, testing schedules, etc.

Based on the above described schedule, **it is requested that the TDF test burn authorization be extended until August 31, 1997.** This date should allow the time to complete the performance testing. Thank you for consideration of this request. Please call if you have any questions concerning this request.

Sincerely,



David A. Buff, P.E.  
Principal Engineer  
Florida P.E. #19011  
SEAL

DB/arz

cc: James Meriwether  
File (2)

**RECEIVED**

APR 25 1997

BUREAU OF  
AIR REGULATION



# 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 8290. 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