

Post-It* Fax Note	7671	Date	8-21-97	# of pages	2
To	William Hanks	From	David Buff		
Co./Dept	4737510-0500	Co.	Golder		
Phone #		Phone #	352-336-5600		
Fax #	850-922-6979	Fax #			

September XX, 1997

*David Buff  
Comments  
on working  
draft  
modification*

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

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

Rc: Okceelanta Power LP  
 DRAFT Wood Fuel Permit Modification  
 Permit No. 0990332-006-AC, PSD-FL-196

Dear Mr. Space:

The Department has reviewed your May 5 application for a modification to the referenced permit to address changes in the emission limits during the burning of wood waste fuel at the cogeneration facility located approximately 6 miles south of South Bay in Palm Beach County. That part of this request related to the burning of tire derived fuel is being held in abeyance until the test burn results on this material are available and reviewed by the Department. The basis for the rest of this request is that analysis of the wood waste and emission tests data for the cogeneration facility while wood was being burned showed slightly higher emissions for some pollutants than was requested in the original application to construct this facility. The request to increase the allowable emissions during the burning of wood waste material is approved, with conditions. Permit No. AC50-219413 (PSD-FL-196) is modified as follows:

**Specific Condition No. 15.**

**FROM:**

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 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.

**TO:**

~~The consumption of wood waste material shall not exceed 40 percent of the heat input or 4.6 x 10<sup>+12</sup> Btu/yr total for the 3 boilers at the cogeneration facility. 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 15.1 percent of the total heat input or 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.~~

*← Delete sentence*

*Delete*

Mr. Dennis Space  
 Page 3 of 5  
 September XX, 1997

Pollutant	EMISSION LIMIT (per boiler) <sup>d</sup>						Total All <sup>e</sup> 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 (PM10)	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 <sup>a</sup>	--	--	--	1.2 <sup>a</sup>	--	1,154.3 <sup>f</sup>
(Wood Waste)	0.05 <sup>a,c</sup>	--	--	--	--	--	1,154.3 <sup>f</sup>
Nitrogen Oxides							
Annual Average	0.15	107.3 <sup>a</sup>	0.15 <sup>a</sup>	73.5 <sup>a</sup>	0.17 <sup>a</sup>	83.3 <sup>a</sup>	862.5
Carbon Monoxide							
24 - average	0.35	250.3	<del>0.35</del>	177.5	<del>0.35</del>	171.5	2012.5
98.0				98.0		98.0	
Volatile Organic Compounds	0.06	42.9	0.03	14.7	0.03	14.7	345
Lead (Bagasse)	2.5 x 10 <sup>-5</sup> <sup>b</sup>	0.018 <sup>b</sup>	8.9 x 10 <sup>-7</sup>	0.0004	6.4 x 10 <sup>-5</sup>	0.031	0.454 <sup>f</sup>
Lead (Wood Waste)	1.6 x 10 <sup>-4</sup> <sup>c</sup>	0.114 <sup>c</sup>					
Mercury (Bagasse)	5.43 x 10 <sup>-6</sup> <sup>b</sup>	0.0039 <sup>b</sup>	2.4 x 10 <sup>-6</sup>	0.00118	8.4 x 10 <sup>-6</sup>	0.0041	0.0300 <sup>f</sup>
Mercury (Wood Waste)	4.0 x 10 <sup>-6</sup> <sup>c</sup>	0.0072 <sup>c</sup>					
Beryllium	--	--	3.5 x 10 <sup>-7</sup>	0.00017	5.9 x 10 <sup>-6</sup>	0.0029	0.0052
Fluorides	--	--	6.3 x 10 <sup>-6</sup>	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

- <sup>a</sup> Compliance based on 30-day rolling average, per 40 CFR 60, Subpart Da.
- <sup>b</sup> Emission limit for bagasse. Subject to revision after testing pursuant to Specific Conditions Nos. 24 and 25.
- <sup>c</sup> Emission limit for wood waste. Heat input from wood waste for the total facility is limited to 40 percent or 4.6 x 10<sup>6</sup> MMBtu/yr which is approximately 418,180 TPY of wood fuel. Subject to revision after testing pursuant to Specific Conditions Nos. 24 and 25. Delete sentence
- <sup>d</sup> The emission limit shall be prorated when more than one type of fuel is burned in a boiler.
- <sup>e</sup> 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.
- <sup>f</sup> Compliance based on a 12-month rolling average for any fuel combination.

Specific Condition No. 21.

FROM:

21. Stack Testing

- 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). Tests shall be conducted during normal operations (i.e., within 10 percent of the permitted 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 emission compliance tests will be conducted in accordance with the provisions of 40 CFR 60.46a.



July 1, 1997

Al Linero, PE  
Administrator - New Source Review Section  
Bureau of Air Regulation  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

**RECEIVED**  
JUL 07 1997  
BUREAU OF  
AIR REGULATION

**Re: Okeelanta Power Limited Partnership  
AC50-219413 / PSD-FL-196  
File No. 099-0332-006-AC  
Permit Modification of Emissions Limits - Second Comments**

Dear Mr. Linero:

I have reviewed the additional information provided by Golder Associates for the above reference modification and offer the following comments on the additional information. My comments are numbered consistent with the additional information submitted.

1. *PBCHD Letter Dated 5/13/97*

Sulfur Dioxide

Please note that although there would be no increase in the *maximum potential* emissions of SO<sub>2</sub>, these maximum emissions are based on *coal firing*. The plant has not installed coal handling equipment and has expressed on many occasions that it has no intention of installing this equipment. At the very least, raising this emissions limiting standard represents a real increase in *actual SO<sub>2</sub> emissions*. The cogeneration facilities are still required to comply with the annual pollutant emission caps defined in the conditions of approval established by Palm Beach County for the special exception zoning petition.

Carbon Monoxide

After further review, I agree that a CO standard based on a 24-hour block average (midnight-to-midnight) appears to be consistent with applicable regulations for similar industries such as boilers at electrical power plants.

Lead

Page 2-7, section 2.3.1.3 of the application for modification provides the following information:

- Average, uncontrolled lead emission rate is  $1.0 \times 10^{-3}$  lb/mmBTU
- Average, controlled lead emission rate is  $5.25 \times 10^{-5}$  lb/mmBTU
- Proposed lead standard is  $1.6 \times 10^{-4}$  lb/mmBTU

So, the average control efficiency based on actual emissions testing would be:

$$CE = [(1.0 \times 10^{-3}) - (5.25 \times 10^{-5})] \div (1.0 \times 10^{-3}) \times 100\% = 94.75\%$$

And, the control efficiency needed to meet the proposed standard would be:

$$CE = [(1.0 \times 10^{-3}) - (1.6 \times 10^{-4})] \div (1.0 \times 10^{-3}) \times 100\% = 84\%$$

This appears to be low for this type of control device. Also, if more lead is being emitted than predicted in the original application, then apparently the wood waste stream also contains more lead. The Department required the applicant (specific condition #12) to submit a wood waste management and testing program designed to prevent treated materials from entering this fuel stream. Based on the information submitted in this modification request, does the Department believe that the current wood waste management program is effective? Should this plan be revised and acceptance criteria be made more stringent?

Mercury

We have no objection to the revised limits for mercury, but request that the control of mercury emissions be linked to the control device. For example, require testing to establish a minimum activated carbon injection feed rate and then continuously monitor this parameter for compliance.

Consideration of TDF

I still disagree that TDF should be included with this modification. I don't see how the Department can approve this modification when it is contingent upon the first request and a review of data for tests not yet performed. These tests were being required to provide the "reasonable assurance" necessary to make a determination. It is conceivable that these tests will indicate that the facility cannot comply with some of these new proposed standards. TDF as an allowable fuel should be kept separate from the issue of modifying the current limits.

Other Questions

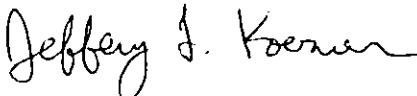
This facility received a "NOx RACT Determination" back in 1993. My recollection is that the ERC determined that NOx RACT could not be applied on a case-by-case basis. The Department was required to re-write the major source NOx RACT rule in general terms for specific types of equipment. Should this rule be revised to include the cogeneration boilers?

2. The Health Department requests that the permit modification specifically state whether compliance with the emissions standards for SO<sub>2</sub>, NOx, and opacity, and CO will be by stack test method or continuous monitor.

I have no comments on numbers 3 through 6 of the additional information. If you have any questions, please contact me at the numbers below.

Sincerely,

For the Division Director  
Environmental Health and Engineering



Jeffery F. Koerner, PE  
Air Pollution Control Section

Phone: (561) 355-4549 SunCom: 273-4549

FAX: (561) 355-2442

Filename: LINERO\_1.LTR

**Berger  
Davis &  
Singerman**  
Professional Association

215 South Monroe Street Suite 705  
Tallahassee, Florida 32301  
Phone: 904.561.3010  
Fax: 904.561.3013

*clair  
Howard  
7/1*  
**RECEIVED**

**JUN 30 1997**

DIVISION OF AIR  
RESOURCES MANAGEMENT

June 27, 1997

Mr. Howard Rhodes, Director  
Division of Air Resources Management  
Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road, MS-5500  
Tallahassee, Florida 32399-2400

Re: Request for Notice of Agency Action: Okeelanta Power Limited Partnership  
and Osceola Power Limited Partnership

Dear Howard:

Pursuant to Section 120.60(3), Florida Statutes, I hereby request notice of any decision that may constitute agency action or intended agency action by the Department regarding any request, by permit application, notice of general permit or otherwise, made by Okeelanta Power Limited Partnership or Osceola Power Limited Partnership (collectively, "OPLP") regarding construction, operation or modification of either of the OPLP facilities location in Palm Beach County. The request includes but is not limited to:

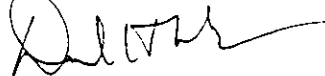
1. Renewal, extension or modification of any permit or permit condition for any of the activities now addressed in air construction permit number AC-50-219413/PSD-FL196.
2. Renewal, extension, or modification of any permit or permit condition for any of the activities now addressed in air construction permit number AC-50-21975/PDS-FL-197.
3. Renewal, extension or modification of any permission to burn tire derived fuel.
4. Any agency action regarding the OPLP Title V permit applications currently pending at the District.

Page Two  
June 27, 1997

I also request notification of any determination by the Department that any such activities by OPLP are exempt from permitting or any other regulatory requirements of the Department. This request applies to those activities that are being or will be considered by the Division of Air Resources Management. To the extent any of these activities require action by the Department's South District Office, I am making a similar request to the District Office.

Please let me know if you have any problems or questions regarding this request. Thank you for your consideration.

Your truly,



Daniel H. Thompson

DHT/eam

cc: Peggy Highsmith

**Berger Davis & Singerman**

215 South Monroe Street Suite 705 Tallahassee, Florida 32301 Phone: 904.561.3010 Fax: 904.561.3013

**Golder Associates Inc.**

6241 NW 23rd Street, Suite 500  
Gainesville, FL 32653-1500  
Telephone (352) 336-5600  
Fax (352) 336-6603



June 23, 1997

Mr. A.A. Linero, P.E.  
Administrator, New Source Review Section  
Bureau of Air Regulation  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

**RECEIVED**

**JUN 24 1997**

**BUREAU OF  
AIR REGULATION**

Re: Permit No. AC50-219413/PSD-FL-196  
File No. 0990332-006-AC  
Okeelanta Power Limited Partnership (OkPLP) Cogeneration Facility  
Permit Modification of Emission Limits

Dear Mr. Linero:

OkPLP has received the Department's request for additional information dated May 19, 1997, concerning the above-referenced permit application. Responses to each of the Department's comments are provided below, in the same order as they appear in the letter.

1. PBCPHU Letter Dated 5/13/97

Sulfur Dioxide

PBCPHU is correct in stating that the only change proposed for SO<sub>2</sub> emissions is the annual average limit for wood waste. This change will not result in an increase in the currently permitted potential emissions for the OkPLP facility of 1,154.3 TPY. In order to maintain the current potential emissions, the maximum coal burning is being reduced from 73,714 TPY to 69,720 TPY.

Carbon Monoxide

OkPLP is currently negotiating with the PBCPHU a corrective action plan (CAP) which addresses CO emissions. The proposed CAP addresses several aspects of the boiler operation, including distribution of boiler combustion air, consistent fuel feed to the boilers, boiler air leakage, boiler upset conditions, changes in fuel quality (including wet fuel), and startup/shutdown. OkPLP has recently begun blending of fuels in the storage area to produce a more homogenous fuel mix and to reduce the effects of excess moisture in the fuel.

In regard to PBCPHU's preference for a 24-hour rolling block average, it is noted that similar type sources permitted in Palm Beach County and in Florida have CO permit limits based on either 24-hour block averages (midnight-to-midnight) or 30-day rolling averages (refer to attached Table 1). Use of a 24-hour rolling average would not reduce total allowable annual emissions but would add greatly to the record keeping and reporting burden for OkPLP. The current software program OkPLP uses for its CEMs would need to be modified as well. Based on the CO limits presented in Table 1, discussions with PBCPHU indicate they have no objection to the 24-hour block average for CO.

In relation to the CO averaging time issue, at this time OkPLP desires to increase the CO emission limit for fuel oil firing. The current limit is 0.2 lb/MMBtu. While this limit can be met when firing 100 percent fuel oil, fuel oil is often fired in conjunction with biomass in order to supplement the combustion process, providing greater combustion efficiency and lower overall CO emissions. Under such conditions, the fuel oil may not burn as effectively, and the CO emissions are more reflective of biomass firing. The requested increase is for a CO limit for fuel oil firing of 0.35 lb/MMBtu, based on a 24-hour block average (the same as for biomass firing). Updated application pages and attachment tables are attached to support this request. This request does not increase the potential CO emissions for the OkPLP facility.

#### Lead

The proposed lead limit of  $1.6 \times 10^{-4}$  lb/MMBtu is above the detectable limit. As shown in Table 2-6 of the application, lead levels as low as  $1.11 \times 10^{-5}$  lb/MMBtu have been measured during the stack tests at OkPLP.

In regard to the comment on the ESP removal efficiency, the test data and fuel analysis data indicate an actual 97 percent lead removal efficiency on average (reference pg. 2-7 of the application). The proposed lead limit is not based on efficiency but rather on the 95 percent confidence level based on the stack test data. The selected limit must be sufficiently high to account for the variability in lead concentrations in the fuel. Based on the highest lead concentration measured in the fuel (37.8 ppm, equivalent to  $4.8 \times 10^{-3}$  lb/MMBtu uncontrolled), the control efficiency needed to meet the proposed limit would be 96.7 percent.

#### Mercury

The test data indicate extremely low levels of mercury present in the gas stream and the samples obtained. All samples were collected and analyzed in strict accordance with EPA Method 29, including a field blank of the reagents and filters used during the testing. The minimum detection limit (MDL) of the method is determined for each test by analyzing blanks for each run. In the case of Osceola, the analytical detection limit was 3.8 micrograms. The samples collected had mercury levels in the range of 6.7 to 7.3 micrograms. When converted to lb/MMBtu and lb/hr, both the results and the MDL are an order of magnitude higher than the current permit limit. Thus, the current method cannot measure levels as low as the permit limit. In order to do so, the detection limit would have to be approximately 0.7 microgram, which is well below the Method 29 analytical detection limits promulgated by EPA.

The proposed emission limits for mercury of  $5.43 \times 10^{-6}$  lb/MMBtu for bagasse and  $4.0 \times 10^{-6}$  lb/MMBtu for wood waste are above the detectable level, as demonstrated by the stack test results (refer to pg. 2-19 of application). During the stack tests, mercury emissions as low as  $6.8 \times 10^{-7}$  lb/MMBtu were measured.

#### Consideration of Tire Derived Fuels

The application contains information on TDF to be complete and consistent with the latest application on file with the Department, which was submitted for TDF firing. Also, if TDF



firing were not incorporated into the current request, proposed emission limits for certain pollutants would have been different, only to be changed again upon approval of TDF firing. It is recognized that approval to burn TDF will not be granted until after the TDF test burn.

Other Questions

OkPLP is subject to the Department's major source NO<sub>x</sub> RACT rule. The facility was issued a RACT determination and limit when initially permitted in 1993. This facility is not a waste-to-energy facility. Such facilities burn municipal solid waste.

The NO<sub>x</sub> emission limit for the cogeneration boilers of 0.15 lb/MMBtu is much lower than the proposed limits for the existing sugar mill boilers. The Okeelanta sugar mill has proposed RACT emission limits of 0.45 lb/MMBtu for their bagasse boilers.

2. The continuous monitors for SO<sub>2</sub>, NO<sub>x</sub>, and opacity at OkPLP all are required by the Subpart Da NSPS and as such must meet all performance specifications of 40 CFR 60 Appendix B. Although not specifically required by rule, the CO monitors also meet the performance specifications of Appendix B.
3. Tables A-1 and A-2 in Appendix A address annual fuel usage and emission rates for a single boiler. The overall facility (total all three boilers) will be limited to 15.1 percent coal burning; however, each individual boiler could burn greater amounts of coal on a heat input basis. This is because the only restriction on each individual boiler is that coal burning not to exceed 25 percent heat input on a calendar quarter basis (based on Subpart Da definition of resource recovery unit). For example, up to 61,172 TPY coal could be burned in a single boiler, representing 24.9 percent on a heat input basis, out of the total 69,720 TPY potentially burned at the entire facility.
4. No actual construction will be associated with this modification request. The Dec. 31, 1998 date was shown since the Title V operating permit should be issued prior to this date.
5. Table 2-4, pg. 2-14, of the application presents the revisions to Specific Condition 20 reflecting the proposed emission limit changes. The only missing item in Table 2-4 is that the 0.05 lb/MMBtu annual average limit for wood waste should have footnote "a" added, which specifies a 30-day rolling average. A revised Table 2-4 reflecting this change as well as the revised CO limit for fuel oil is attached.
6. The following specific condition of the current permit should also be changed to reflect our request:

S. C. 15 - To reflect not more than 69,720 TPY of coal to be burned.

It is believed that no other specific conditions of the permit would require changing.

Mr. A.A. Linero, P.E.

Page 4

June 23, 1997

7. As stated on page 2-6 of the application, the requested annual SO<sub>2</sub> limit for wood waste fuel is 0.05 lb/MMBtu. This annual limit would be based on a 30-day rolling average. As described under the responses to PBCPHU's comments, the revised limit for wood waste will not increase potential SO<sub>2</sub> emissions from the facility.
8. OkPLP has tested for VOC emissions using both Method 25 and Method 25A simultaneously. Therefore, OkPLP has met the requirements of the permit.

Thank you for consideration of these responses. Please call if you have any questions concerning this information.

Sincerely,

*David A. Buff*

David A. Buff, P.E.

Principal Engineer

Florida P.E. #19011

SEAL

DB/vjp

Attachments

cc: James Meriwether

File (2)

*cc: W. Hanks, BAR  
J. Koerner, PR Co.  
D. Knowles, SD  
EPA  
NPS*

Table 2-4. Emission Limits for the OkPLP Facility

Pollutant	Emission Limit <sup>d</sup> (per boiler)								Total All Three Boilers <sup>e</sup> (TPY)
	Biomass		No. 2 Oil		Bit. Coal		Tire-Derived Fuel		
	(lb/MMBtu)	(lb/hr)	(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	0.03	10.2	172.5
Particulate (PM10)	0.03	21.5	0.03	14.7	0.03	14.7	0.03	10.2	172.5
Sulfur Dioxide	—	—	—	—	1.2	588.0	—	—	—
3-Hour Average	—	—	—	—	1.2	588.0	1.2	408.0	—
24-Hour Average	0.10	71.5	0.05	24.5	1.2 <sup>a</sup>	—	0.8 <sup>a</sup>	—	1,154.3 <sup>f</sup>
Annual Average	0.02 <sup>a,b</sup>	—	—	—	1.2 <sup>a</sup>	—	0.8 <sup>a</sup>	—	—
Bagasse	0.05 <sup>a,c</sup>	—	—	—	—	—	—	—	—
Woodwaste	—	—	—	—	—	—	—	—	—
Nitrogen Oxides	—	—	—	—	—	—	—	—	—
Annual Average	0.15 <sup>a</sup>	107.3 <sup>a</sup>	0.15 <sup>a</sup>	73.5 <sup>a</sup>	0.17 <sup>a</sup>	83.3 <sup>a</sup>	0.15 <sup>a</sup>	51.0 <sup>a</sup>	862.5
Carbon Monoxide	0.35	250.3	0.35	171.5	0.2	98.5	0.35	119.0	2,012.5
24-Hour Average	0.06	42.9	0.03	14.7	0.03	14.7	0.06	20.4	345.0
VOCs	—	—	—	—	—	—	—	—	—
Lead	2.5 x 10 <sup>-5b</sup>	0.0179 <sup>b</sup>	8.9 x 10 <sup>-7</sup>	0.00044	6.4 x 10 <sup>-5</sup>	0.031	4.2 x 10 <sup>-5</sup>	0.0143	0.454
Bagasse	1.6 x 10 <sup>-4c</sup>	0.1144 <sup>c</sup>	—	—	—	—	—	—	—
Wood Waste	—	—	—	—	—	—	—	—	—
Mercury	5.43 x 10 <sup>-6b</sup>	0.0039 <sup>b</sup>	2.4 x 10 <sup>-6</sup>	0.00118	8.4 x 10 <sup>-6</sup>	0.0041	6.5 x 10 <sup>-6</sup>	0.0022	0.0300
Bagasse	4.0 x 10 <sup>-6c</sup>	0.0029 <sup>c</sup>	—	—	—	—	—	—	—
Wood Waste	—	—	3.5 x 10 <sup>-7</sup>	0.00017	5.9 x 10 <sup>-6</sup>	0.0029	4.5 x 10 <sup>-7</sup>	1.5 x 10 <sup>-4</sup>	0.0052
Beryllium	—	—	6.3 x 10 <sup>-6</sup>	0.0031	0.024	11.8	6.5 x 10 <sup>-4</sup>	0.22	21.2
Fluorides	0.003	2.15	0.0015	0.74	0.036	17.6	0.010	3.40	34.6
Sulfuric Acid Mist	—	—	—	—	—	—	—	—	—

<sup>a</sup> Compliance based on 30-day rolling average, per 40 CFR 60, Subpart Da.  
<sup>b</sup> Emission limit for bagasse. Subject to revision after testing pursuant to Specific Conditions Nos. 24 and 25.  
<sup>c</sup> Emission limit for wood waste.  
<sup>d</sup> The emission limit shall be prorated when more than one type of fuel is burned in a boiler.  
<sup>e</sup> Limit heat input from No. 2 fuel to less than 25 percent of total heat input on a calendar quarter basis, coal to 69,720 tons and TDF to 81,246 TPY during any 12-month period, and the combination of oil and coal to less than 25 percent of the total heat input on a calendar quarter basis.  
<sup>f</sup> Compliance based on a 12-month rolling average.

Table 2-13. Maximum Annual Emissions for Okeelanta Power Cogeneration Facility (total all boilers)

Regulated Pollutant	Biomass			Alternate Fuel			Total Annual Emissions (TPY)
	Emission Factor (lb/MMBtu)	Activity Factor (E12 Btu/yr)	Annual Emissions (TPY)	Emission Factor (lb/MMBtu)	Activity Factor (E12 Btu/yr)	Annual Emissions (TPY)	
<u>100% Biomass</u>							
Particulate (TSP)	0.03	11.500	172.50	--	--	--	172.50
Particulate (PM10)	0.03	11.500	172.50	--	--	--	172.50
Sulfur dioxide - Bagasse	0.02	6.900 b	69.00	--	--	--	184.00
- Wood Waste	0.05	4.600 c	115.00	--	--	--	
Nitrogen oxides	0.15	11.500	862.50	--	--	--	862.50
Carbon monoxide	0.35	11.500	2,012.50	--	--	--	2,012.50
VOC	0.06	11.500	345.00	--	--	--	345.00
Lead - Bagasse	2.5E-05	6.900 b	0.086	--	--	--	0.454 a
- Wood Waste	1.6E-04	4.600 c	0.368	--	--	--	
Mercury - Bagasse	5.43E-06	6.900 b	0.0187	--	--	--	0.0279
- Wood Waste	4.00E-06	4.600 c	0.00920	--	--	--	
Beryllium	--	--	--	--	--	--	--
Fluorides	--	--	--	--	--	--	--
Sulfuric acid mist	0.0006	11.500	3.45	--	--	--	3.45
<u>75.1% Biomass / 24.9% Fuel Oil</u>							
Particulate (TSP)	0.03	8.130	121.95	0.03	2.696	40.44	162.39
Particulate (PM10)	0.03	8.130	121.95	0.03	2.696	40.44	162.39
Sulfur dioxide - Bagasse	0.02	4.878 b	48.78	0.05	2.696	67.40	197.48
- Wood Waste	0.05	3.252 c	81.30	--	--	--	
Nitrogen oxides	0.15	8.130	609.75	0.15	2.696	202.20	811.95
Carbon monoxide	0.35	8.130	1,422.75	0.35	2.696	471.80	1,894.55
VOC	0.06	8.130	243.90	0.03	2.696	40.44	284.34
Lead - Bagasse	2.5E-05	4.878 b	0.061	8.9E-07	2.696	0.0012	0.322
- Wood Waste	1.6E-04	3.252 c	0.260	--	--	--	
Mercury - Bagasse	5.43E-06	4.878 b	0.0132	2.4E-06	2.696	0.0032	0.0230
- Wood Waste	4.00E-06	3.252 c	0.00650	--	--	--	
Beryllium	--	--	--	3.5E-07	2.696	0.00047	0.00047
Fluorides	--	--	--	6.27E-06	2.696	0.0085	0.0085
Sulfuric acid mist	0.0006	8.130	2.44	0.0015	2.696	2.02	4.46
<u>84.9% Biomass / 15.1% Coal</u>							
Particulate (TSP)	0.03	9.408	141.12	0.03	1.673	25.10	166.22
Particulate (PM10)	0.03	9.408	141.12	0.03	1.673	25.10	166.22
Sulfur dioxide - Bagasse	0.02	5.645 b	56.45	1.2	1.673	1,003.80	1,154.33 a
- Wood Waste	0.05	3.763 c	94.08	--	--	--	
Nitrogen oxides	0.15	9.408	705.60	0.17	1.673	142.21	847.81
Carbon monoxide	0.35	9.408	1,646.40	0.2	1.673	167.30	1,813.70
VOC	0.06	9.408	282.24	0.03	1.673	25.10	307.34
Lead - Bagasse	2.5E-05	5.645 b	0.071	6.4E-05	1.673	0.0535	0.425
- Wood Waste	1.6E-04	3.763 c	0.301	--	--	--	
Mercury - Bagasse	5.43E-06	5.645 b	0.0153	8.4E-06	1.673	0.0070	0.0299
- Wood Waste	4.00E-06	3.763 c	0.00753	--	--	--	
Beryllium	--	--	--	5.9E-06	1.673	0.0049	0.0049 a
Fluorides	--	--	--	0.024	1.673	20.08	20.08 a
Sulfuric acid mist	0.0006	9.408	2.82	0.036	1.673	30.11	32.94 a
<u>78.1% Biomass / 21.9% Tire-Derived Fuel (9.0% TDF, weight basis)</u>							
Particulate (TSP)	0.03	8.982	134.73	0.03	2.519	37.79	172.52 a
Particulate (PM10)	0.03	8.982	134.73	0.03	2.519	37.79	172.52 a
Sulfur dioxide - Bagasse	0.02	5.389 b	53.89	0.8	2.519	1,007.60	1,151.31
- Wood Waste	0.05	3.593 c	89.82	--	--	--	
Nitrogen oxides	0.15	8.982	673.65	0.15	2.519	188.93	862.58 a
Carbon monoxide	0.35	8.982	1,571.85	0.35	2.519	440.83	2,012.68 a
VOC	0.06	8.982	269.46	0.06	2.519	75.57	345.03 a
Lead - Bagasse	2.5E-05	5.389 b	0.067	4.2E-05	2.519	0.0529	0.408
- Wood Waste	1.6E-04	3.593 c	0.287	--	--	--	
Mercury - Bagasse	5.43E-06	5.389 b	0.0146	6.5E-06	2.519	0.0082	0.0300 a
- Wood Waste	4.00E-06	3.593 c	0.00719	--	--	--	
Beryllium	--	--	--	4.5E-07	2.519	0.00057	0.00057
Fluorides	--	--	--	6.5E-04	2.519	0.82	0.8187
Sulfuric acid mist	0.0006	8.982	2.69	0.0069	2.519	8.69	11.39

a Denotes maximum annual emissions for any fuel scenario.

b Represents 60% of total heat input.

c Represents 40% of total heat input.

Note: No emissions of total reduced sulfur, asbestos, or vinyl chloride are expected.

Table 2-12. Maximum Short-Term Emissions for OkPLP Cogeneration Facility (per boiler)

Regulated Pollutant	Biomass			No. 2 Fuel Oil			Coal			Tire-Derived Fuel			25%TDF/ 75% Biomass (d)	Maximum Emissions for any fuel (lb/hr)
	Emission Factor (lb/MMBtu)	Activity Factor (MMBtu/hr)	Maximum Emissions (lb/hr)	Emission Factor (lb/MMBtu)	Activity Factor (MMBtu/hr)	Maximum Emissions (lb/hr)	Emission Factor (lb/MMBtu)	Activity Factor (MMBtu/hr)	Maximum Emissions (lb/hr)	Emission Factor (lb/MMBtu)	Activity Factor (MMBtu/hr)	Maximum Emissions (lb/hr)		
Particulate (TSP)	0.03	715	21.5	0.03	490	14.7	0.03	490	14.7	0.03	340	10.2	21.5	21.5
Particulate (PM10)	0.03	715	21.5	0.03	490	14.7	0.03	490	14.7	0.03	340	10.2	21.5	21.5
Sulfur dioxide (c)	0.10	715	71.5	0.05	490	24.5	1.2	490	588.0	1.2	340	408.0	445.5	588.0
Nitrogen oxides (a)	0.15	715	107.3	0.15	490	73.5	0.17	490	83.3	0.15	340	51.0	107.3	107.3
Carbon monoxide (b)	0.35	715	250.3	0.35	490	171.5	0.2	490	98.0	0.35	340	119.0	250.3	250.3
Volatile organic compds.	0.06	715	42.9	0.03	490	14.7	0.03	490	14.7	0.06	340	20.4	42.9	42.9
Lead - Bagasse	2.5E-05	715	0.0179	8.9E-07	490	0.00044	6.4E-05	490	0.031	4.2E-05	340	0.0143	0.0743	0.1144
- Wood Waste	1.6E-04	715	0.1144											
Mercury - Bagasse	5.43E-06	715	0.0039	2.4E-06	490	0.00118	8.4E-06	490	0.0041	6.5E-06	340	0.0022	0.0042	0.0042
- Wood Waste	4.0E-06	715	0.0029											
Beryllium	--	715	--	3.5E-07	490	0.00017	5.9E-06	490	0.0029	4.5E-07	340	1.5E-04	0.00015	0.0029
Fluorides	--	715	--	6.3E-06	490	0.0031	0.024	490	11.8	6.5E-04	340	0.22	0.22	11.8
Sulfuric acid mist <sup>c</sup>	0.003	715	2.15	0.0015	490	0.74	0.036	490	17.64	0.010	340	3.40	4.53	17.64

<sup>a</sup> 30-day rolling average

<sup>b</sup> 24-hour average.

<sup>c</sup> 24-hour average.

<sup>d</sup> Weight basis, 340 MMBtu/hr TDF and 375 MMBtu/hr biomass

Table A-2. Maximum Annual Emissions for Single Boiler at Okeelanta Power Cogeneration Facility

Regulated Pollutant	Biomass			Alternate Fuel			Total Annual Emissions (TPY)
	Emission Factor (lb/MMBtu)	Activity Factor (E12 Btu/yr)	Annual Emissions (TPY)	Emission Factor (lb/MMBtu)	Activity Factor (E12 Btu/yr)	Annual Emissions (TPY)	
<u>100% Biomass</u>							
Particulate (TSP)	0.03	6.263	93.95	--	--	--	93.95 a
Particulate (PM10)	0.03	6.263	93.95	--	--	--	93.95 a
Sulfur dioxide - Bagasse	0.02	3.758 b	37.58	--	--	--	100.21
- Wood waste	0.05	2.505 c	62.63				
Nitrogen oxides	0.15	6.263	469.73	--	--	--	469.73 a
Carbon monoxide	0.35	6.263	1,096.03	--	--	--	1,096.03 a
VOC	0.06	6.263	187.89	--	--	--	187.89 a
Lead - Bagasse	2.5E-05	3.758 b	0.047	--	--	--	0.067
- Wood Waste	1.6E-05	2.505 c	0.020				
Mercury - Bagasse	5.43E-06	3.758 b	0.0102	--	--	--	0.0152
- Wood Waste	4.00E-06	2.505 c	0.00501				
Beryllium	--	--	--	--	--	--	--
Fluorides	--	--	--	--	--	--	--
Sulfuric acid mist	0.0006	6.263	1.88	--	--	--	1.88
<u>75.1% Biomass / 24.9% Fuel Oil</u>							
Particulate (TSP)	0.03	4.428	66.42	0.03	1.468	22.02	88.44
Particulate (PM10)	0.03	4.428	66.42	0.03	1.468	22.02	88.44
Sulfur dioxide - Bagasse	0.02	2.657 b	26.57	0.05	1.468	36.70	107.55
- Wood waste	0.05	1.771 c	44.28				
Nitrogen oxides	0.15	4.428	332.10	0.15	1.468	110.10	442.20
Carbon monoxide	0.35	4.428	774.90	0.35	1.468	256.90	1,031.80
VOC	0.06	4.428	132.84	0.03	1.468	22.02	154.86
Lead - Bagasse	2.5E-05	2.657 b	0.033	8.9E-07	1.468	0.0007	0.048
- Wood Waste	1.6E-05	1.771 c	0.014				
Mercury - Bagasse	5.43E-06	2.657 b	0.0072	2.4E-06	1.468	0.0018	0.0125
- Wood Waste	4.00E-06	1.771 c	0.00354				
Beryllium	--	--	--	3.5E-07	1.468	0.00026	0.00026
Fluorides	--	--	--	6.27E-06	1.468	0.0046	0.0046
Sulfuric acid mist	0.0006	4.428	1.33	0.0015	1.468	1.10	2.43
<u>75.1% Biomass / 24.9% Coal</u>							
Particulate (TSP)	0.03	4.428	66.42	0.03	1.468	22.02	88.44
Particulate (PM10)	0.03	4.428	66.42	0.03	1.468	22.02	88.44
Sulfur dioxide - Bagasse	0.02	2.967 b	29.67	1.2	1.468	880.80	947.00
- Wood waste	0.05	1.461 c	36.53				
Nitrogen oxides	0.15	4.428	332.10	0.17	1.468	124.78	456.88
Carbon monoxide	0.35	4.428	774.90	0.2	1.468	146.80	921.70
VOC	0.06	4.428	132.84	0.03	1.468	22.02	154.86
Lead - Bagasse	2.5E-05	2.657 b	0.033	6.4E-05	1.468	0.0470	0.0944 a
- Wood Waste	1.6E-05	1.771 c	0.014				
Mercury - Bagasse	5.43E-06	2.657 b	0.0072	8.4E-06	1.468	0.0062	0.0169
- Wood Waste	4.00E-06	1.771 c	0.00354				
Beryllium	--	--	--	5.9E-06	1.468	0.0043	0.0043 a
Fluorides	--	--	--	0.024	1.468	17.62	17.62 a
Sulfuric acid mist	0.0006	4.428	1.33	0.036	1.468	26.42	27.75 a
<u>59.8% Biomass / 40.2% Tire-Derived Fuel</u>							
Particulate (TSP)	0.03	3.744	56.16	0.03	2.519	37.79	93.95 a
Particulate (PM10)	0.03	3.744	56.16	0.03	2.519	37.79	93.95 a
Sulfur dioxide - Bagasse	0.02	2.246 b	22.46	0.8	2.519	1,007.60	1067.50 a
- Wood waste	0.05	1.498 c	37.44				
Nitrogen oxides	0.15	3.744	280.80	0.15	2.519	188.93	469.73
Carbon monoxide	0.35	3.744	655.20	0.35	2.519	440.83	1096.03 a
VOC	0.06	3.744	112.32	0.06	2.519	75.57	187.89 a
Lead - Bagasse	2.5E-05	2.246 b	0.028	4.2E-05	2.519	0.0529	0.0930
- Wood Waste	1.6E-05	1.498 c	0.012				
Mercury - Bagasse	5.43E-06	2.246 b	0.0061	6.5E-06	2.519	0.0082	0.0173 a
- Wood Waste	4.00E-06	1.498 c	0.00300				
Beryllium	--	--	--	4.5E-07	2.519	0.00057	0.00057
Fluorides	--	--	--	6.5E-04	2.519	0.82	0.8187
Sulfuric acid mist	0.0006	3.744	1.12	0.0069	2.519	8.69	9.81

a Denotes maximum annual emissions for any fuel scenario.

b Represents 60% of total heat input.

c Represents 40% of total heat input.

Note: No emissions of total reduced sulfur, asbestos, or vinyl chloride are expected.

Fuel type percentages are based on heat input.

Emissions Unit Information Section 1 of 3  
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.35 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>250.3 lb/hour</b>	<b>1,096.3 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>EPA Method 10 annually.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on biomass firing. Limit based on 24-hour average.</b>		

B.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.35 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>171.5 lb/hour</b>	<b>471.8 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Limit fuel oil burning to 24.9% for any single boiler.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on No.2 fuel oil firing. Limit based on 24-hour average.</b>		

Emissions Unit Information Section 2 of 3  
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.35 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>250.3 lb/hour</b>	<b>1,096.3 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>EPA Method 10 annually</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on biomass firing. Limit based on 24-hour average.</b>		

B.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.35 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>171.5 lb/hour</b>	<b>471.8 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Limit fuel oil burning to 24.9% for any single boiler.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on No.2 fuel oil firing. Limit based on 24-hour average.</b>		



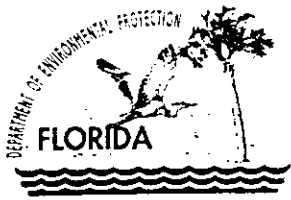
Emissions Unit Information Section 3 of 3  
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.35 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>250.3 lb/hour</b>	<b>1,096.3 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>EPA Method 10 annually</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on biomass firing. Limit based on 24-hour average.</b>		

B.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.35 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>171.5 lb/hour</b>	<b>471.8 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Limit fuel oil burning to 24.9% for any single boiler.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on No.2 fuel oil firing. Limit based on 24-hour average.</b>		



# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

May 19, 1997

## CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

Re: Permit Modification of Emission Limits  
Permit No. AC50-219413/PSD-FL-196  
File No. 0990332-006-AC

Dear Mr. Space:

The Department has reviewed your April 1997 application for a permit modification to revise the mercury, lead, sulfur dioxide and carbon monoxide emission limits in the referenced air construction permit for your cogeneration facility located near South Bay in Palm Beach County.

The application listed tire derived fuel (TDF) as one of the fuels burned at this facility. The routine use of TDF at this facility is not approved at this time. Its use is being addressed in an earlier request for a permit modification (File No. 0990332-003-AC). The Department cannot consider the use of TDF until the approved test burn results are evaluated. The TDF issue will not be addressed in this request to increase the emission limits for wood waste fuel.

Additional information is needed to process your request to increase the emission limits for wood waste fuel. Please provide the following information:

1. Comments on the issues raised in the PBCPHU's May 13 letter.
2. Compliance with an emission standard based on an extended time period will need to be determined with a continuous emission monitor. Do the continuous emission monitors installed at this facility meet the performance specifications in 40CFR60, Appendix B?
3. Please expand Table A-1 and A-2 in Appendix A to address 15.1 percent coal firing.
4. What is meant by the projected date of completion of construction of December 31, 1998 (page 6 of the application)?
5. Please revise Specific Condition 20 of the referenced permit to reflect the changes in emission limits being requested.

Mr. Dennis V. Space  
Page Two  
May 19, 1997

6. Would any other specific condition be changed if your request was approved?
7. Please recommend a 30-day rolling average sulfur dioxide emission standard for wood waste fuel. Will the recommended standard increase the potential sulfur dioxide emissions?
8. The construction permit specified EPA Method 18 and 25 for VOC. Was EPA Method 25A approved for this facility by the Alternate Stack Procedure (Rule 62-297, F.A.C.)?

The Department will resume processing your application after receipt of the requested information. If you have any questions on this matter, please call Willard Hanks at 904/488-1344.

Sincerely,



A. A. Linero, P.E.  
Administrator  
New Source Review Section

AAL/wh/t

Attachment: PBCPHU May 13, 1997 letter

cc: Jeff Koerner, PBCPHU  
David Knowles, SD  
David Buff, Golder Assoc.

Is your 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):

- 1.  Addressee's Address
- 2.  Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:  
 Dennis V. Space, Gen. Mgr.  
 Okelanta Power, LP  
 P O Box 8  
 South Bay, FL  
 33493

4a. Article Number  
 P 265 659 217

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

7. Date of Delivery  
 5-23-97

5. Received By: (Print Name)

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

6. Signature: (Addressee or Agent)

X  G. Ambrose

PS Form 3811, December 1994

Domestic Return Receipt

Thank you for using Return Receipt Service.

P 265 659 217

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 Power	
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	5-19-97	
	0990332-006 AC PSD-FL-196	

PS Form 3800, April 1995



May 13, 1997

Willard Hanks, Project Engineer  
New Source Review Section  
Bureau of Air Regulation  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400  
FAX: (904) 922-6979

**RECEIVED**

**MAY 16 1997**

**BUREAU OF  
AIR REGULATION**

**Re: Okeelanta Power Limited Partnership  
AC50-219413 / PSD-FL-196  
Request to Revise Standards for Hg, Pb, SO<sub>2</sub>, and CO for Cogeneration Boilers**

Dear Mr. Hanks:

We have reviewed the above referenced request and have the following comments:

Sulfur Dioxide

The request proposes the following SO<sub>2</sub> standards:

- 0.10 lb/mmBTU of heat input, on a 24-hour average for bagasse and wood waste (*no change*)
- 0.02 lb/mmBTU of heat input, on an annual basis for bagasse (*no change, at this time?*)
- 0.05 lb/mmBTU of heat input, on an annual basis for wood waste (*revision*)

This request is based on additional information not present during the initial application including specific fuel analyses and CEM data. Will this result in an increase in potential SO<sub>2</sub> emissions?

Carbon Monoxide

The request proposes to change the averaging time for the CO standard from an 8-hour averaging period to a 24-hour averaging period. The original purpose of the CO standard was to establish a parameter that indicated efficient combustion in the boiler. The variability of the fuel types and feed rates will cause the fluctuations reported by the CEM data. The proposed request will not increase CO emissions on a daily or annual basis. The Health Department has no objection to this request as long as the new condition specifically states that the standard will be 0.35 lb CO/mmBTU of heat input on a 24-hour rolling block average. This should allow ample time for the boiler operators to regain control of the combustion process and yet maintain CO as an indicator of combustion efficiency. Compliance should be determined by certified CEM.

*Question:* How does the facility propose to correct the "unusually" wet bagasse which is identified as a cause of the CO excursions? Florida definitely has a rainy season.

Lead

The request proposes to maintain the lead emission standard at  $2.5 \times 10^{-5}$  lb/mmBTU of heat input for bagasse, but change the lead standard to  $16 \times 10^{-5}$  lb/mmBTU of heat input for wood waste.

*Comment:* Based on the information provided in the application to modify, the proposed limit represents a control efficiency of only 90%. As permit review engineers, we are frequently lead to believe that electrostatic precipitators are capable of at least 95% control for such a facility.

*Question:* Is the proposed limit above the detectable level for lead as defined in the test method?

Mercury

The request proposes to lower the mercury emission standard to  $5.43 \times 10^{-6}$  lb/mmBTU of heat input for bagasse, but raise the mercury standard to  $4.0 \times 10^{-6}$  lb/mmBTU of heat input for wood waste. This request is based on additional information not present during the initial application including specific fuel analyses and test data. The decrease in the bagasse standard is used to offset the potential increase that would be caused if only the wood waste standard were raised.

*Question: Is the proposed limit above the detectable level for mercury as defined in the test method?*

Consideration of Tire Derived Fuels (TDF)

This request includes comments and calculations considering TDF. The application for modification states that the permit modification is being held in abeyance pending test results. It is the position of the Health Department that TDF is not yet an approved fuel and should not be considered in this request. The Department has only granted a temporary test burn period in which to gather data. Based on the test results, TDF *may or may not* be approved as a permanent fuel. It is our understanding that another request for permit modification must be submitted with the test results. Also, the current emissions standards are specific to the type of fuel being burned. Why wouldn't the burning of TDF create yet another emissions standard for several of these pollutants? The Health Department requests that the application be revised to exclude TDF at this time.

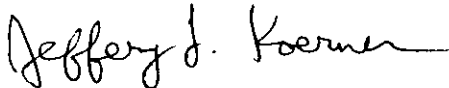
Other Questions

Is this source subject to the Department's major source NOx RACT rule? If not, why? Is this facility considered a waste-to-energy facility? The NOx standard for the cogeneration boilers appears higher than the proposed standard for the existing sugar mill boilers.

Thank you for the opportunity to comment on this application. If you have any questions, please contact me at the numbers below.

Sincerely,

For the Division Director  
Environmental Health and Engineering



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Filename: OKE\_STD.LTR