



# Department of Environmental Protection

ARMS  
Lester  
Coulter  
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 (SO<sub>2</sub>). 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 SO<sub>2</sub> 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 SO<sub>2</sub>, 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) <sup>d</sup>						Total <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 (PM <sub>10</sub> )	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>	0.05a 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
Carbon Monoxide							
<del>8</del> 24-hour average	<del>0.35</del>	250.3	<del>0.2 0.35</del>	<del>98.0 171.5</del>	<del>0.2 0.35</del>	<del>98.0 171.5</del>	2,012.5
Volatile Organic Compounds	0.06	42.9	0.03	14.7	0.03	14.7	345
Lead	<del>2.5 x 10<sup>-5</sup></del>	0.018	<del>8.9 x 10<sup>-7</sup></del>	0.0004	6.4 x 10 <sup>-5</sup>	0.031	0.17 <u>0.454f</u>
<u>Bagasse</u>	2.5 x 10 <sup>-5</sup>	0.018					
<u>Wood Waste</u>	1.6x10 <sup>-4c</sup>	0.114c					
Mercury			2.4 x 10 <sup>-6</sup>	0.00118	8.4 x 10 <sup>-6</sup>	0.0041	0.0300f
Bagasse	<del>6.3 x 10<sup>-6</sup></del>	0.0045 b					
<u>Wood Waste</u>	<del>5.43 x 10<sup>-6b</sup></del>	0.0039 b					
	<del>0.29 x 10<sup>-6 c</sup></del>	0.00021 e					
	4.0 x 10 <sup>-6 c</sup>	0.0029 c					
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

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.

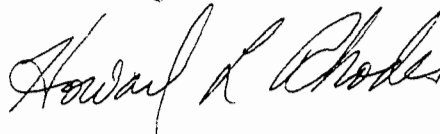
<u>EPA Method*</u>	<u>For Determination of</u>
1	Selection of sample site and velocity traverses.
2	Stack gas flow rate when converting concentrations to or from mass emission limits.
3 or 3A	Gas analysis when needed for calculation of molecular weight or percent O <sub>2</sub> .
4	Moisture content when 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 <sub>10</sub> 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:

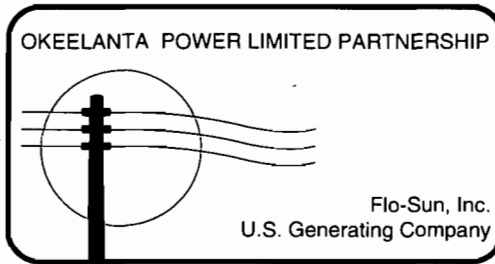
Mr. James T. Carlton, Okeelanta Power L.P. \*  
Mr. Daniel Thompson, Berger Davis & Singerman \*  
Mr. David Buff, Golder Associates  
Mr. Brian Beals, EPA  
Mr. John Bunyak, NPS  
Mr. David Knowles, SD  
Mr. James Koerner, PBCPHU

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)



September 30, 1997

State of Florida  
Department of Environmental Protection  
Bureau of Air Regulation  
2600 Blair Stone Road, MS #5505  
Tallahassee, Florida 32399-2400

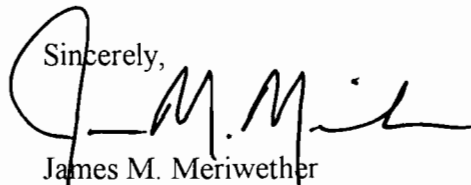
Attn: Mr. A.A. Linero, P.E.  
Administrator

Re: Okeelanta Power Limited Partnership  
DRAFT Permit Modification No. 0990332-006-AC,  
(PSD-FL-196)E  
Proof of Publication

Dear Mr. Linero:

The "Public Notice of Intent to Issue Air Construction Permit Modification" for Okeelanta Power was published in the Palm Beach Post on September 22, 1997. Please see the enclosed Proof of Publication for that notice.

Sincerely,



James M. Meriwether  
Environmental Manager

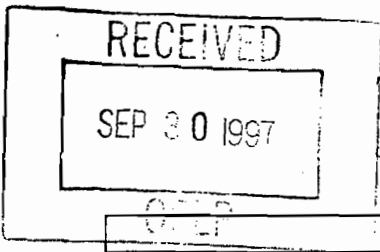
cc: J. Carlton  
R. Lima  
R. Williams  
M. Golden  
D. Dee  
D. Buff

CC: W. Hanks, BARR  
D. Knowles, SD  
J. Stormer, PB Co.  
EPA  
NPS

**RECEIVED**

OCT 03 1997

BUREAU OF  
AIR REGULATION



# THE PALM BEACH POST

Published Daily and Sunday  
West Palm Beach, Palm Beach County, Florida

## PROOF OF PUBLICATION

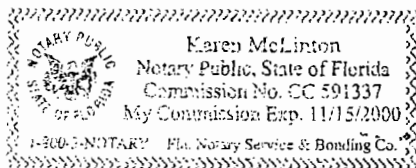
STATE OF FLORIDA  
COUNTY OF PALM BEACH

Before the undersigned authority personally appeared **Chris Bull** who on oath says that she is **Classified Advertising Manager** of The Palm Beach Post, a daily and Sunday newspaper published at West Palm Beach in Palm Beach County, Florida; that the attached copy of advertising, being a **Notice** in the matter of **Intent to issue air construction permit** in the --- Court, was published in said newspaper in the issues of **September 22, 1997**.

Affiant further says that the said The Post is a newspaper published at West Palm Beach, in said Palm Beach County, Florida, and that the said newspaper has heretofore been continuously published in said Palm Beach County, Florida, daily and Sunday and has been entered as second class mail matter at the post office in West Palm Beach, in said Palm Beach County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she/he has neither paid nor promised any person, firm or corporation any discount rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Sworn to and subscribed before me this **24** day of **September** A.D. 1997

Personally known **XX** or Produced Identification \_\_\_\_\_  
Type of Identification Produced \_\_\_\_\_



NO. 396071  
PUBLIC NOTICE OF INTENT  
TO ISSUE AIR CONSTRUCTION  
PERMIT MODIFICATION  
STATE OF FLORIDA  
DEPARTMENT  
OF ENVIRONMENTAL  
PROTECTION  
DRAFT Permit Modification  
No. 0990332-006-AC  
(PSD-FL-196)  
Okeelanta Power L.P.  
Cogeneration Facility  
Palm Beach County  
The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification to Okeelanta Power Limited Partnership for increases in emissions from the cogeneration facility located 6 miles south of South Bay, Palm Beach County. A Best Available Control Technology (BACT) determination was not required pursuant to Rules 62-212.400 and 410, F.A.C., Prevention of Significant Deterioration (PSD). The facility consists of three multiple fuel boilers which produce steam for use at the adjacent Okeelanta sugar mill and up to 74.9 megawatts of electricity. The applicant's name and address are: Okeelanta Power Limited Partnership, Post Office Box 8, South Bay, Florida 33493.  
The modification is to revise allowable limits for lead (Pb), sulfur dioxide (SO<sub>2</sub>), and Mercury (Hg) when burning woodwaste; revise carbon monoxide while burning fuel oil and coal; and revise the averaging time for CO for all fuels. Annual emissions will increase only for Pb, but the increase is not significant (about 0.3 tons) with respect to PSD review. Pb emissions are minimized by the electrostatic precipitators used to control particulate emissions at the facility. Hg emissions are controlled by carbon injection. SO<sub>2</sub> emissions are minimized by burning very low sulfur fuel oil and limiting the amount of low sulfur coal which can be fired. CO emissions are controlled by good combustion practices.  
An air quality impact analysis was updated for the modification. Emissions increases from the facility will consume PSD increment but will not significantly contribute to or cause a violation of any state or federal ambient air quality standards.  
The Department will issue the FINAL Permit Modification, in accordance with the conditions of the DRAFT Permit Modification unless a response is received in accordance with the following procedures results in a different decision or significant change of terms or conditions.  
The Department will accept written comments concerning the proposed DRAFT Permit Modification issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit Modification, the Department shall issue a Revised DRAFT Permit Modification and require, if applicable, another Public Notice.  
The Department will issue FINAL Permit Modification with the conditions of the DRAFT Permit Modification unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S. The procedures for petitioning for a hearing are set forth below. Mediation is not available for this action. A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department, 3900 Com-

O'Keelanta

0990332-006-AC

PSD-FI-196

monwealth Boulevard, Mall Station #35, Tallahassee, Florida 32399-3000, telephone: 850/488-8370, fax: 850/487-4838. Petitions must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-5.207 of the Florida Administrative Code.

A petition must contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of the facts that the petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the Department's action or proposed action addressed in this notice of intent.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Dept. of Environmental Protection  
Bureau of Air Regulation  
111 S. Magnolia Drive, Suite 4  
Tallahassee, Florida, 32301  
Telephone: 850/488-1344  
Fax: 650/922-6979

Dept. of Environmental Protection  
South District  
2295 Victoria Ave. Suite 364  
Ft. Myers, Florida 33901  
Telephone: 613/332-6975  
Fax: 813/332-6969  
Palm Beach County  
Public Health Unit  
901 Evernia  
Post Office Box 29  
West Palm Beach, Florida  
33401  
Phone: 561/355-3070  
Fax: 561/355-2442

The complete project file includes the Draft Permit Modification, the application, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-1344, for additional information.  
PUB: The Palm Beach Post  
September 22, 1997



# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

September 14, 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: DRAFT Permit Modification No. 0990332-006-AC (PSD-FL-196) *E*  
74.9 Megawatt Cogeneration Facility

Dear Mr. Carlton:

Enclosed is one copy of the Draft Air Construction Permit Modification for the cogeneration facility located near South Bay in Palm Beach County. The Department's Intent to Issue Air Construction Permit Modification and the "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION" must be published within 30 (thirty) days of receipt of this letter. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit modification.

Inclusion of emission limits related to burning tire derived fuel will be addressed after the test burn results are evaluated. Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, P.E., Administrator, New Source Review Section at the above letterhead address. If you have any other questions, please contact Mr. Willard Hanks or Mr. Linero at 850/488-1344.

Sincerely,

*A. A. Linero*, P.E. 9/14  
for C. H. Fancy, P.E., Chief,  
Bureau of Air Regulation

CHF/wh/t

Enclosures



In the Matter of an  
Application for Permit Modification by:

Okeelanta Power Limited Partnership  
Post Office Box 8  
South Bay, Florida 33493

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DRAFT Permit Modification No. 0990332-006-AC  
PSD-FL-196  
Okeelanta Cogeneration Facility  
Palm Beach County

### INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification (copy of DRAFT Permit modification attached) for the proposed project, as detailed in the application specified above and attached Technical Evaluation and Preliminary Determination, for the reasons stated below.

The applicant, Okeelanta Power Limited Partnership, applied on May 5, 1997 to the Department for an air construction permit modification for its cogeneration facility located six miles south of South Bay, Palm Beach County. The request is to revise permitted emission limits for three biomass, oil, and coal-fired boilers to reflect achievable emissions based on actual operations.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that an air construction permit modification is required to modify the emission limits for this facility.

The Department intends to issue this air construction permit modification based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION". The notice shall be published one time only within 30 (thirty) days in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-1344; Fax 850/ 922-6979) within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit modification pursuant to Rule 62-103.150 (6), F.A.C.

The Department will issue the FINAL Permit Modification, in accordance with the conditions of the enclosed DRAFT Permit Modification unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed DRAFT Permit Modification issuance for a period of 30 (thirty) days from the date of publication of "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION." Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit Modification, the Department shall issue a Revised DRAFT Permit Modification and require, if applicable, another Public Notice.

The Department will issue the permit modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S. The procedures for petitioning for a hearing are set forth below. Mediation is not available for this action.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, telephone: 850/488-9730, fax: 850/487-4938. Petitions must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-5.207 of the Florida Administrative Code.

A petition must contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of the facts that the petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the action or proposed action addressed in this notice of intent.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.

*C. H. Fancy, P.E. 9/14*  
for C. H. Fancy, P.E., Chief  
Bureau of Air Regulation

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION (including the PUBLIC NOTICE, and DRAFT permit modification) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 9-15-97 to the person(s) listed:

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

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.

*Kuni Jober* 9-15-97  
(Clerk) (Date)

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

- Complete items 1 and/or 2 for additional service.
- 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:

James J Carlton, AR  
Atlanta Power, LP  
P O Box 8  
South Bay, FL  
33493

4a. Article Number

P 265 659 456

4b. Service Type

- Registered
- Express Mail
- Return Receipt for Merchandise
- Certified
- Insured
- COD

7. Date of Delivery

9/17/97

5. Received By: (Print Name)

*[Signature]*

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

6. Signature (Addressee or Agent)

X

J. Ambius

PS Form 3811, December 1994

Domestic Return Receipt

Thank you for using Return Receipt Service.

P 265 659 456

US Postal Service

**Receipt for Certified Mail**

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sender	
James Carlton	
Street & Number	
Atlanta 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	
9-15-97	
0990332-006-AC	
PSD-FI-196	

PS Form 3800, April 1995

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: Mr. Dan Thompson, Esq. Berger, Davis, Surgeon 215 S. Monroe St. Tallahassee, FL Tracy Adams 32301	4a. Article Number P 265 659 457	
	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	
	5. Received By: (Print Name) Tracy Adams	7. Date of Delivery SEP 17 1997
6. Signature: (Addressee or Agent) X	8. Addressee's Address (Only if requested and fee is paid)	

Thank you for using Return Receipt Service.

PS Form 3811, December 1994

Domestic Return Receipt

P 265 659 457

US Postal Service  
**Receipt for Certified Mail**  
 No Insurance Coverage Provided.  
 Do not use for International Mail (See reverse)

Sent to	Dan Thompson	
Street & Number	Berger, Davis	
Post Office, State, & ZIP Code	Surgeon	
Postage	Tale. FL	
Certified Fee		
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to Whom & Date Delivered		
Return Receipt Showing to Whom, Date, & Addressee's Address		
<b>TOTAL Postage &amp; Fees</b>	<b>\$</b>	
Postmark or Date	9-15-97	
	0990332-006-AC	

PS Form 3800, April 1995

**PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION**

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DRAFT Permit Modification No. 0990332-006-AC (PSD-FL-196)

Okeelanta Power L.P. Cogeneration Facility  
Palm Beach County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification to Okeelanta Power Limited Partnership for increases in emissions from the cogeneration facility located 6 miles south of South Bay, Palm Beach County. A Best Available Control Technology (BACT) determination was not required pursuant to Rules 62-212.400 and 410, F.A.C., Prevention of Significant Deterioration (PSD). The facility consists of three multiple fuel boilers which produce steam for use at the adjacent Okeelanta sugar mill and up to 74.9 megawatts of electricity. The applicant's name and address are: Okeelanta Power Limited Partnership, Post Office Box 8, South Bay, Florida 33493.

The modification is to revise allowable limits for lead (Pb), sulfur dioxide (SO<sub>2</sub>), and Mercury (Hg) when burning woodwaste; revise carbon monoxide while burning fuel oil and coal; and revise the averaging time for CO for all fuels. Annual emissions will increase only for Pb, but the increase is not significant (about 0.3 tons) with respect to PSD review.

Pb emissions are minimized by the electrostatic precipitators used to control particulate emissions at the facility. Hg emissions are controlled by carbon injection. SO<sub>2</sub> emissions are minimized by burning very low sulfur fuel oil and limiting the amount of low sulfur coal which can be fired. CO emissions are controlled by good combustion practices.

An air quality impact analysis was updated for the modification. Emissions increases from the facility will consume PSD increment but will not significantly contribute to or cause a violation of any state or federal ambient air quality standards.

The Department will issue the FINAL Permit Modification, in accordance with the conditions of the DRAFT Permit Modification unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed DRAFT Permit Modification issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit Modification, the Department shall issue a Revised DRAFT Permit Modification and require, if applicable, another Public Notice.

The Department will issue FINAL Permit Modification with the conditions of the DRAFT Permit Modification unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S. The procedures for petitioning for a hearing are set forth below. Mediation is not available for this action.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, telephone: 850/488-9370, fax: 850/487-4938. Petitions must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-5.207 of the Florida Administrative Code.

A petition must contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of the facts that the petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the Department's action or proposed action addressed in this notice of intent.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Dept. of Environmental Protection Bureau of Air Regulation 111 S. Magnolia Drive, Suite 4 Tallahassee, Florida, 32301 Telephone: 850/488-1344 Fax: 850/922-6979	Dept. of Environmental Protection South District 2295 Victoria Ave. Suite 364 Ft. Myers, Florida 33901 Telephone: 813/332-6975 Fax: 813/332-6969	Palm Beach County Public Health Unit 901 Evernia Post Office Box 29 West Palm Beach, Florida 33401 Phone: 561/355-3070 Fax: 561/355-2442
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The complete project file includes the Draft Permit Modification, the application, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-1344, for additional information.

**TECHNICAL EVALUATION**  
**AND**  
**PRELIMINARY DETERMINATION**

**OKEELANTA POWER LIMITED PARTNERSHIP**

**74.9 MW Cogeneration Facility**  
**Palm Beach County**

Air Construction Permit No. 0990332-006-AC  
PSD-FL-196  
[Modifies AC50-219413]

Department of Environmental Protection  
Division of Air Resources Management  
Bureau of Air Regulation

September 14, 1997



# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

## 1. APPLICATION INFORMATION

### 1.1 Applicant Name and Address

Okeelanta Power Limited Partnership  
Post Office Box 8  
South Bay, Florida 33493

Authorized Representative: Mr. James T. Carlton

### 1.2 Reviewing and Process Schedule

05-05-97: Date of Receipt of Application  
05-19-97: Department's Preliminary Incompleteness Letter  
06-23-97: Golder Assoc. Initial Response to Department's letter of 05-19-97  
09-14-97: Issuance of Intent

## 2. FACILITY INFORMATION

### 2.1 Facility Location

Okeelanta Power Limited Partnership cogeneration facility is located off Highway 27, approximately six miles south of South Bay, Palm Beach County, next to the Okeelanta Corporation sugar mill. The UTM coordinates of this site are Zone 17, 524.9 km East and 2940.1 km North.

### 2.2 Standard Industrial Classification Code (SIC)

Major Group No.	49	Electric Generation
Group No.	4911	External Combustion Boiler - Electric Generation

### 2.3 Facility Category

This 74.9 megawatt electric cogeneration facility is allowed to burn biomass (bagasse and wood waste material), No. 2 fuel oil, and low sulfur coal in three Zurn spreader-stoker boilers. Depending on the outcome of a future tire derived fuel (TDF) test burn, they may be permitted to burn TDF in the future. The facility includes fuel and ash handling equipment and steam turbines. Steam generated by the units is used at the adjacent sugar mill while electricity is sold offsite.

Okeelanta Power is classified as a major or Title V source of air pollution because emissions of several regulated air pollutants, including particulate matter (PM/PM<sub>10</sub>), sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and volatile organic compounds (VOC) exceed 100 TPY.

This industry is included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for various criteria pollutants, the facility is also a major facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). Per Table 62-212.400-2, modifications at the facility resulting in emissions increases greater than 40 TPY of NO<sub>x</sub> or SO<sub>2</sub> or 0.6 TPY of lead (Pb) require review per the PSD rules and a determination for Best Available Control Technology (BACT) per Rule 62-212.410, F.A.C.

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

### 3. PROCESS DESCRIPTION

The source is a 74.9 MWe (gross) capacity biomass/coal-fired cogeneration facility consisting of three steam boilers and one steam turbine and associated equipment. During the sugar processing season, the cogeneration facility is to provide steam to the existing Osceola Farms sugar mill by burning primarily bagasse, which is the cellulose fiber coproduct resulting from the sugar cane grinding process, while also generating electricity. During the off-season, the cogeneration facility will burn primarily wood waste to generate electricity. The facility is also permitted to burn low sulfur coal and low sulfur fuel oil.

The maximum heat input to each of the three boilers is 715 million Btu per hour (MMBtu/hr) when firing biomass and 490 MMBtu/hr when firing No. 2 fuel oil or low sulfur coal. Maximum annual coal burning will be limited to 69,720 tons per year (TPY). Coal and oil burning combined are limited to a maximum of 25 percent of the heat input to the facility on a quarterly basis.

Air pollution control equipment serving each boiler consists of an electrostatic precipitator (ESP) to control particulate matter (PM), including heavy metal emissions, a selective non-catalytic reduction (SNCR) system for the control of NO<sub>x</sub> emissions, and a carbon injection system for mercury (Hg) control. A simplified process flow diagram of the cogeneration facility is presented in Figure 1.

### 4. PROJECT DESCRIPTION

This permit addresses the following emissions units:

EMISSION UNIT NO.	SYSTEM	EMISSION UNIT DESCRIPTION
001	Power	Unit 1 Boiler and associated equipment
002	Power	Unit 2 Boiler and associated equipment
003	Power	Unit 3 Boiler and associated equipment

No physical modifications are related to the proposed project. The modification relates to revisions of conditions in the original air construction permit issued in September, 1993.

The requested modifications consist of a minor reduction in the amount of coal the facility can burn and allows minor increases in the hourly emissions of lead (Pb), SO<sub>2</sub>, CO, and Hg and a revision of the averaging time for the CO limits. Except for lead, annual emissions of these pollutants will not exceed presently permitted emission limits.

The requested changes in the permit limits will not increase permitted annual emissions of PSD regulated pollutants except for Pb. Emission increases for Pb are below the significant emission level of 0.6 TPY per Table 62-212.400-2, F.A.C. and do not require PSD or non-attainment new source review.

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

## 5. RULE APPLICABILITY

The three boilers are subject to federal new source performance standards (NSPS) for electric utility boilers (40 CFR 60, Subpart Da), incorporated by reference in Rule 62-204.800, F.A.C. Because the facility will burn yard waste potentially originating from residential sources, the boilers are also subject to a reporting and record keeping requirements of under 40 CFR 60, Subparts Ea and Cb, incorporated by reference in Rule 62-204.800, F.A.C. The existing permits limit combustion of municipal solid waste (MSW), including yard waste, to 30 percent (weight basis) on a calendar quarter basis. Therefore no provisions of Subparts Ea and Cb will apply to the facility other than the record keeping and reporting requirements.

The proposed project is subject to permitting, preconstruction review, emissions limits and compliance requirements under the provisions of Chapter 403, Florida Statutes, and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.).

This facility is located in Palm Beach County, an area designated as attainment or maintenance for all criteria pollutants in accordance with Rule 62-204.360, F.A.C. The proposed project is not subject to review under Rule 62-212.400., F.A.C., Prevention of Significant Deterioration (PSD), because the potential emission increases for Pb are below the significant emission rates given in Chapter 62-212, Table 62-212.400-2, F.A.C. However the emission increases described in the project description, constitute a modification which requires a construction permit per Rule 62-210.300.

The emission units affected by this permit modification shall comply with all applicable provisions of the Florida Administrative Code (including applicable portions of the Code of Federal Regulations incorporated therein) and, specifically, the following Chapters and Rules:

Chapter 62-4	Permits.
Rule 62-204.220	Ambient Air Quality Protection
Rule 62-204.240	Ambient Air Quality Standards
Rule 62-204.260	Prevention of Significant Deterioration Increments
Rule 62-204.360	Designation of Prevention of Significant Deterioration Areas
Rule 62-204.800	Federal Regulations Adopted by Reference
Rule 62-210.300	Permits Required
Rule 62-210.350	Public Notice and Comments
Rule 62-210.370	Reports
Rule 62-210.550	Stack Height Policy
Rule 62-210.650	Circumvention
Rule 62-210.700	Excess Emissions
Rule 62-210.900	Forms and Instructions
Rule 62-212.300	General Preconstruction Review Requirements
Rule 62-212.400	Prevention of Significant Deterioration
Rule 62-213	Operation Permits for Major Sources of Air Pollution
Rule 62-296.320	General Pollutant Emission Limiting Standards
Rule 62-296.510	RACT for Major NO <sub>x</sub> /VOC Emitting Sources
Rule 62-297.310	General Test Requirements
Rule 62-297.401	Compliance Test Methods
Rule 62-297.520	EPA Continuous Monitor Performance Specifications

# TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

## 6. SOURCE IMPACT ANALYSIS

### 6.1 Emission Limitations

The modified cogeneration facility will increase allowable annual emissions of the following PSD pollutants (Table 212.400-2, F.A.C.): Pb. Emission limits for individual fuels and averaging times are being revised for SO<sub>2</sub>, CO, and Hg; however, annual emissions remain unchanged. The permitted and requested allowable emissions for this modification are summarized in the following table.

### 6.2 Emission Summary

**EMISSION UNITS 001, 002, and 003 (total)**

Pollutant	Current Allowable	Requested Allowable	Net Increase	PSD Significant Level
	tons/yr	tons/yr	tons/yr	tons/yr
SO <sub>2</sub>	1154.3	1154.3	0	40
CO	2012.5	2012.5	0	100
Mercury	0.030	0.030	0	0.1
Lead	0.17	0.454	0.284	0.60

According to the construction permit, Specific Condition No. 22, compliance tests are to be conducted every 6 months for a period of 2 years in order to confirm the emission limits for certain pollutants in the permit. Tests conducted while burning wood indicate that Okeelanta Power was not meeting the initial emissions limits for some pollutants that were listed in the application for permit to construct and incorporated into the original air construction permit.

As a condition of the construction permit, the permittee was required to analyze the wood waste being burned at the cogeneration plant. Their analysis showed the sulfur, lead and mercury contents were higher than originally estimated.

The sulfur content is variable, ranging from 0.02 to 0.17 percent sulfur and resulting in emissions of up to 0.08 lbs/MMBtu. The original construction permit allowed 0.02 lbs/MMBtu. Based on the emission data collected to date, the permittee is requesting that the annual average emission limit for wood waste be raised to 0.05 lbs/MMBtu. To prevent an increase in annual sulfur dioxide emissions (TPY), the permittee is reducing the amount of coal that may be burned at the facility to 15.1 percent.

The carbon monoxide (CO) emission limit in the construction permit for biomass is 0.35 lbs/MMBtu, 8-hr average. Emission data to date have shown CO emissions as high as 0.7 lbs/MMBtu. The higher CO emissions was caused by fluctuations in fuel quality and unusually wet biomass. Emission data show the 0.35 lbs/MMBtu limit can be met on a 24-hour basis. The annual emissions are not changed by having the same limit with a longer averaging time. They requested the CO emission standard for fossil fuels also be raised to 0.35 lbs/MMBtu because of the loss in efficiency when fossil fuel are burned with biomass. Overall there will still be a very substantial reduction in CO emissions compared with the boilers replaced by the cogeneration facility.

## TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

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The allowable lead emission rate for biomass in the construction permit is  $2.5 \times 10^{-5}$  lbs/MMBtu. Actual test data show lead emissions during the burning of wood waste to vary from 1.23 to  $13.6 \times 10^{-5}$  lbs/MMBtu. The permittee requested an emission limit of  $1.6 \times 10^{-4}$  lbs/MMBtu for wood waste (no change for bagasse). This will result in an increase in allowable lead emissions of 0.284 TPY.

The allowable emission limits for mercury in the construction permit were  $6.3 \times 10^{-6}$  lbs/MMBtu for bagasse and  $0.29 \times 10^{-6}$  lbs/MMBtu for wood waste. Compliance test data for mercury on the cogeneration plant while burning wood waste indicates mercury emissions of 0.95 to  $3.23 \times 10^{-6}$  lbs/MMBtu. Based on the compliance test results, the permittee is requesting a mercury emission limit of  $4.0 \times 10^{-6}$  lbs/MMBtu for wood waste. In order to maintain mercury emissions from the facility at 0.0300 TPY, the permittee is requesting that the mercury limit for bagasse be reduced to  $5.43 \times 10^{-6}$  lbs/MMBtu. Mercury emissions will continue to be controlled by carbon injection.

### 6.4 Air Quality Analysis

The air modeling analysis was updated for the hazardous air pollutants (HAPs) using the proposed emissions and the actual stack parameters for the three boilers (stack diameter 10 feet, stack height 225 feet). The results show the maximum predicted impacts for the HAPs are below the Florida Air Reference Concentrations.

## 7. CONCLUSION

Based on the foregoing technical evaluation of the application and additional information submitted by Okeelanta Power Limited Partnership, the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations provided the Department's previous Best Available Control Technology Determination is implemented and certain conditions are met. The modified conditions modified are listed in the attached draft conditions of approval.

*Permit Engineer: Willard Hanks*

*Reviewed and Approved by A. A. Linero, P.E.*

**DRAFT**

October XX, 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 (SO<sub>2</sub>). 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 SO<sub>2</sub> 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, SO<sub>2</sub>, 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:

DRAFT

Pollutant	EMISSION LIMIT (per boiler) <sup>d</sup>						Total <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 (PM <sub>10</sub> )	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	<del>0.02</del> a				1.2 a		1,154.3 f
<u>Bagasse</u>	<u>0.02 a</u>						
<u>Wood Waste</u>	<u>0.05a c</u>						
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							
<u>824-hour average</u>	0.35	250.3	<del>0.2</del> <u>0.35</u>	<del>98.0</del> <u>171.5</u>	<del>0.2</del> <u>0.35</u>	<del>98.0</del> <u>171.5</u>	2,012.5
Volatile Organic Compounds	0.06	42.9	0.03	14.7	0.03	14.7	345
Lead	<del>2.5 x 10<sup>-5</sup></del>	<del>0.018</del>	8.9 x 10 <sup>-7</sup>	0.0004	6.4 x 10 <sup>-5</sup>	0.031	<del>0.17</del> <u>0.454f</u>
<u>Bagasse</u>	<u>2.5 x 10<sup>-5</sup></u>	<u>0.018</u>					
<u>Wood Waste</u>	<u>1.6x10<sup>-4</sup>c</u>	<u>0.114c</u>					
Mercury			2.4 x 10 <sup>-6</sup>	0.00118	8.4 x 10 <sup>-6</sup>	0.0041	0.0300f
Bagasse	<del>6.3 x 10<sup>-6</sup></del>	<del>0.0045 b</del>					
	<u>5.43 x 10<sup>-6</sup>b</u>	<u>0.0039 b</u>					
Wood Waste	<del>0.29 x 10<sup>-6</sup> c</del>	<del>0.00021 c</del>					
	<u>4.0 x 10<sup>-6</sup> c</u>	<u>0.0029 c</u>					
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. Subject to revision after testing pursuant to Specific Conditions Nos. 24 and 25.

<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%~~ 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.

<sup>f</sup> 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.

# DRAFT

## 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 <sub>2</sub> .
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 <sub>10</sub> 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.



**DRAFT**

A copy of this permit modification shall be filed with the referenced permit and shall become part of the permit. 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 \_\_\_\_\_ 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)

\_\_\_\_\_  
(Date)

# Memorandum

# Florida Department of Environmental Protection

---

TO: ~~Clair Fancy~~  
THRU: Al Linero   
FROM: Willard Hanks  
DATE: September 3, 1997  
SUBJECT: Okeelanta Power L.P.  
Modification of Permit  
AIRS No. 0990332-006-AC (PSD-FL-196)

Attached for your approval is an Intent to Issue and associated documents to modify the construction permit for Okeelanta Power's cogeneration facilities located near South Bay in Palm Beach County.

The modification will require a minor reduction in the amount of coal that can be burned in the facility, and allows increases in the hourly emissions of sulfur dioxide, lead, mercury and carbon monoxide. Except for lead, and as provided for by Specific Conditions of the existing permit, the proposed adjustments will result in annual emissions below the current annual permitted values. The modification also clarifies some compliance testing procedures, including when the sulfuric acid mist compliance test is to be conducted.

That part of this request having to do with the burning of tire derived fuel is being held in abeyance until after the Department reviews the test burn results. The Department may receive a similar request from this facility once emission data is collected on the burning of bagasse and tire derived fuels at this plant.

I recommend your approval and signature of the Intent to modify the permit for the burning of wood waste.

WH/t

Attachment



# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

## P.E. Certification Statement

**Permittee:**

**DEP File No. 0990332-006-AC (PSD-FL-196)**

Okeelanta Power L.P.  
Cogeneration Facility  
South Bay, Palm Beach County

**Project type:**

Modification of Air Construction Permit for 74.9 Megawatt cogeneration facility. Revision of various emission limits below PSD-significance levels.

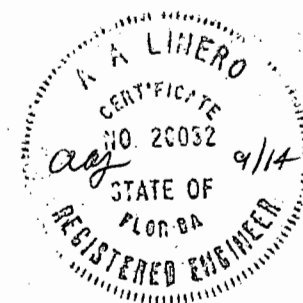
*I HEREBY CERTIFY that the engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).*

A.A. Linero, P.E.  
Registration Number: 26032

9/14/97

Date

Department of Environmental Protection  
Bureau of Air Regulation  
New Source Review Section  
111 South Magnolia Drive, Suite 4  
Tallahassee, Florida 32301  
Phone (850) 488-1344  
Fax (850) 922-6979



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

Post-it* Fax Note	7671	Date	8-21-97	# of pages	2
To	William Harber		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 wood  
draft  
modification*

**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  
 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+12 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>	171.5 <sup>5</sup> 98.0	<del>0.35</del>	71.5 <sup>5</sup> 98.0	2012.5
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	0.484 <sup>f</sup>
(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>
(Wood Waste)	4.0 x 10 <sup>-6</sup> <sup>c</sup>	0.0029 <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.

<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.

← Delete sentence



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

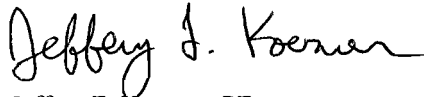
This facility received a "NOx RACT Determination" back in 1993. My recollection is that the ERC determined that NOx RACT could not be applied on a case-by-case basis. The Department was required to re-write the major source NOx RACT rule in general terms for specific types of equipment. Should this rule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

*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.

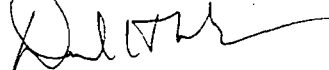


Page Two  
June 27, 1997

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

SEALED

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									
3-Hour Average	—	—	—	—	1.2	588.0	—	—	—
24-Hour Average	0.10	71.5	0.05	24.5	1.2	588.0	1.2	408.0	—
Annual Average									
Bagasse	0.02 <sup>a,b</sup>	—	—	—	1.2 <sup>a</sup>	—	0.8 <sup>a</sup>	—	1,154.3 <sup>f</sup>
Woodwaste	0.05 <sup>a,c</sup>								
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									
24-Hour Average	0.35	250.3	0.35	171.5	0.2	98.5	0.35	119.0	2,012.5
VOCs	0.06	42.9	0.03	14.7	0.03	14.7	0.06	20.4	345.0
Lead									
Bagasse	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
Wood Waste	1.6 x 10 <sup>-4c</sup>	0.1144 <sup>c</sup>							
Mercury									
Bagasse	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
Wood Waste	4.0 x 10 <sup>-6c</sup>	0.0029 <sup>c</sup>							
Beryllium	—	—	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
Fluorides	—	—	6.3 x 10 <sup>-6</sup>	0.0031	0.024	11.8	6.5 x 10 <sup>-4</sup>	0.22	21.2
Sulfuric Acid Mist	0.003	2.15	0.0015	0.74	0.036	17.6	0.010	3.40	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.<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>a,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>		

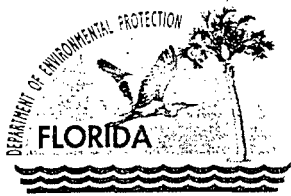
Emissions Unit Information Section 3 of 3  
Allowable Emissions (Pollutant identified on front page)

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.

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

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,



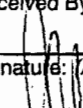
A. A. Linero, P.E.  
Administrator  
New Source Review Section

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?

<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 V. Space, Gen. Mgr. Okelanta Power, LP P O Box 8 South Bay, FL 33493		4a. Article Number P 265 659 217	
5. Received By: (Print Name)		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	
6. Signature: (Addressee or Agent) X  G. Ambrus		7. Date of Delivery 5-23-97	
PS Form 3811, December 1994		8. Addressee's Address (Only if requested and fee is paid)	

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 P50-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.

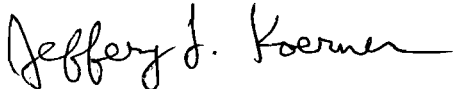
Other Questions

Is this source subject to the Department's major source NO<sub>x</sub> RACT rule? If not, why? Is this facility considered a waste-to-energy facility? The NO<sub>x</sub> 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



Jeffery F. Koerner, PE  
Air Pollution Control Section

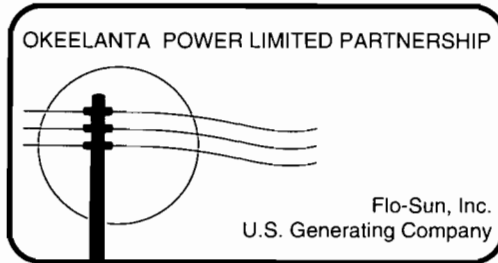
Phone: (407) 355-4549 SunCom: 273-4549

FAX: (407) 355-2442

cc: L. Martin Hodgkins, Sr. Director  
Zoning Division  
Palm Beach County Planning, Zoning, & Building  
100 Australian Avenue  
West Palm Beach, FL 33406

Ed Walker, Plan Review Section  
Palm Beach County Health Department

Filename: OKE\_STD.LTR



**RECEIVED**  
**MAY 05 1997**  
**BUREAU OF**  
**AIR REGULATION**

April 30, 1997

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

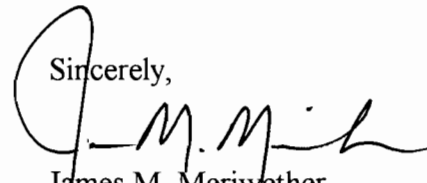
Re: Okeelanta Power Limited Partnership  
AC 50-219413; PSD-FL-196 E ?

0990332-006 AC

Dear Mr. Fancy:

Please find attached four copies of the Okeelanta Power Limited Partnership "Application for Air Permit Modification". The application was prepared by Golder Associates, Inc., and requests revisions of the permitted limits for mercury, lead, sulfur dioxide and the averaging period for carbon monoxide. Check #5447 in the amount of \$250.00 is also enclosed to cover the permit processing fee. If you have any questions please contact me at (561) 993-1003.

Sincerely,



James M. Meriwether  
Environmental Manager

cc: (w/ attachment)  
David Knowles - FDEP/South District - 1 copy  
Ajaya Satyal - PBCHD - 1 copy  
Michelle Golden - USGen - 1 copy  
David Dee - Landers & Parsons - 1 copy  
(w/o attachment)  
JMG members  
J. Ketterling

CC: EPA  
NPS

**OKEELANTA POWER LTD. PARTNERSHIP**

6 MILES SOUTH OF SOUTH BAY  
ON US HWY. 27  
SOUTH BAY, FL 33493

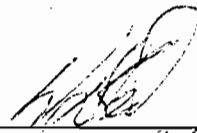
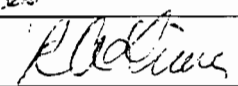
FIRST UNION NATIONAL BANK  
OF FLORIDA  
FT. LAUDERDALE, FLORIDA 33301  
63-643-670

Pay: \*\*\*\*\*Two hundred fifty dollars and no ce:

DATE	CHECK NO.	AMOUNT
4/28/97	5447	\$++++++2.

PAY  
TO THE  
ORDER  
OF

FL Dept of Envr. Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

  
\_\_\_\_\_  




09/10/97

Received  
May 5, 1997  
BAR

**OKEELANTA POWER  
LIMITED PARTNERSHIP**

**APPLICATION FOR AIR PERMIT  
APRIL 1997**

**Prepared For:**

**Okeelanta Power Limited Partnership  
Six Miles South of South Bay  
South Bay, Florida 33493**

**Prepared By:**

**Golder Associates Inc.  
6241 NW 23rd Street, Suite 500  
Gainesville, Florida 32653-1500**

9737509Y/F3

0990332-006-AC

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#### APPLICATION FOR AIR PERMIT

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# Department of Environmental Protection

## DIVISION OF AIR RESOURCES MANAGEMENT

### APPLICATION FOR AIR PERMIT - LONG FORM

See Instructions for Form No. 62-210.900(1)

#### I. APPLICATION INFORMATION

This section of the Application for Air Permit form identifies the facility and provides general information on the scope and purpose of this application. This section also includes information on the owner or authorized representative of the facility (or the responsible official in the case of a Title V source) and the necessary statements for the applicant and professional engineer, where required, to sign and date for formal submittal of the Application for Air Permit to the Department. If the application form is submitted to the Department using ELSA, this section of the Application for Air Permit must also be submitted in hard-copy.

#### Identification of Facility Addressed in This Application

Enter the name of the corporation, business, governmental entity, or individual that has ownership or control of the facility; the facility site name, if any; and the facility's physical location. If known, also enter the facility identification number.

1. Facility Owner/Company Name: <b>Okeelanta Power Limited Partnership</b>	
2. Site Name: <b>Okeelanta Power L.P.</b>	
3. Facility Identification Number: <b>0990332</b> [ ] Unknown	
4. Facility Location Information: Street Address or Other Locator: <b>Six Miles South of South Bay</b> City: <b>South Bay</b> County: <b>Palm Beach</b> Zip Code: <b>33493</b>	
5. Relocatable Facility? [ ] Yes [X] No	6. Existing Permitted Facility? [X] Yes [ ] No

#### Application Processing Information (DEP Use)

1. Date of Receipt of Application:	<b>May 5, 1997</b>
2. Permit Number:	<b>0990332-006-AC</b>
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

**Owner/Authorized Representative or Responsible Official**

1. Name and Title of Owner/Authorized Representative or Responsible Official: <b>Ricardo A. Lima, Vice-President/General Manager</b>
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: <b>Okeelanta Power Limited Partnership</b> Street Address: <b>P.O. Box 8</b> City: <b>South Bay</b> State: <b>FL</b> Zip Code: <b>33493</b>
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: <b>(561) 993-1000</b> Fax: <b>(561) 996-6596</b>
4. Owner/Authorized Representative or Responsible Official Statement:  <i>I, the undersigned, am the owner or authorized representative* of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.</i>  Signature <u><i>R.A. Lima</i></u> Date <u><i>4-28-97</i></u>

\* Attach letter of authorization if not currently on file.

**Scope of Application**

This Application for Air Permit addresses the following emissions unit(s) at the facility. An Emissions Unit Information Section (a Section III of the form) must be included for each emissions unit listed.

<b>Emissions Unit ID</b>		<b>Description of Emissions Unit</b>	<b>Permit Type</b>
Unit #	Unit ID		
1R	001	Boiler A fired by Biomass/No.2 oil/coal/TDF	AC1F
2R	002	Boiler B fired by Biomass/No.2 oil/coal/TDF	AC1F
3R	003	Boiler C fired by Biomass/No.2 oil/coal/TDF	AC1F

**See individual Emissions Unit (EU) sections for more detailed descriptions.  
Multiple EU IDs indicated with an asterisk (\*). Regulated EU indicated with an "R".**



**Purpose of Application and Category**

Check one (except as otherwise indicated):

**Category I: All Air Operation Permit Applications Subject to Processing Under Chapter 62-213, F.A.C.**

This Application for Air Permit is submitted to obtain:

Initial air operation permit under Chapter 62-213, F.A.C., for an existing facility which is classified as a Title V source.

Initial air operation permit under Chapter 62-213, F.A.C., for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number: \_\_\_\_\_

Air operation permit renewal under Chapter 62-213, F.A.C., for a Title V source.

Operation permit to be renewed: \_\_\_\_\_

Air operation permit revision for a Title V source to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number: \_\_\_\_\_

Operation permit to be renewed: \_\_\_\_\_

Air operation permit revision or administrative correction for a Title V source to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. Also check Category III.

Operation permit to be revised/corrected: \_\_\_\_\_

\_\_\_\_\_

Air operation permit revision for a Title V source for reasons other than construction or modification of an emissions unit. Give reason for the revision e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit to be revised: \_\_\_\_\_

Reason for revision: \_\_\_\_\_

\_\_\_\_\_

**Category II: All Air Construction Permit Applications Subject to Processing Under Rule 62-210.300(2)(b), F.A.C.**

This Application for Air Permit is submitted to obtain:

- Initial air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.

Current operation/construction permit number(s): \_\_\_\_\_  
\_\_\_\_\_

- Renewal air operation permit under Rule 62-210.300(2)(b), F.A.C., for a synthetic non-Title V source.

Operation permit to be renewed: \_\_\_\_\_

- Air operation permit revision for a synthetic non-Title V source. Give reason for revision; e.g., to address one or more newly constructed or modified emissions units.

Operation permit to be revised: \_\_\_\_\_

Reason for revision: \_\_\_\_\_  
\_\_\_\_\_

**Category III: All Air Construction Permit Applications for All Facilities and Emissions Units.**

This Application for Air Permit is submitted to obtain:

- Air construction permit to construct or modify one or more emissions units within a facility (including any facility classified as a Title V source).

Current operation permit number(s), if any: \_\_\_\_\_  
**AC50-219413; PSD-FL-196**

- Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

Current operation permit number(s): \_\_\_\_\_  
\_\_\_\_\_

- Air construction permit for one or more existing, but unpermitted, emissions units.

**Application Processing Fee**

Check one:

Attached - Amount: \$ \$ 250.00

Not Applicable.

**Construction/Modification Information**

1. Description of Proposed Project or Alterations:  <b>This application proposes revisions to the current construction permit for the 74.9 MW Biomass fired cogeneration facility. This application requests revised permit limits for SO2, Pb, and Hg when burning wood waste. In addition, the averaging time associated with the CO emissions limit is being changed to a 24-hour average. These revisions are based on actual stack test data and fuel quality of biomass fuel.</b>
2. Projected or Actual Date of Commencement of Construction :  <b>1 Jun 1997</b>
3. Projected Date of Completion of Construction :  <b>31 Dec 1998</b>

**Professional Engineer Certification**

1. Professional Engineer Name: <b>David A. Buff</b> Registration Number: <b>19011</b>
2. Professional Engineer Mailing Address: Organization/Firm: <b>Golder Associates Inc.</b> Street Address: <b>6241 NW 23rd Street, Suite 500</b> City: <b>Gainesville</b> State: <b>FL</b> Zip Code: <b>32653-1500</b>
3. Professional Engineer Telephone Numbers: Telephone: <b>(352) 336-5600</b> Fax: <b>(352) 336-6603</b>

4. Professional Engineer's Statement:

*I, the undersigned, hereby certify, except as particularly noted herein\*, that:*

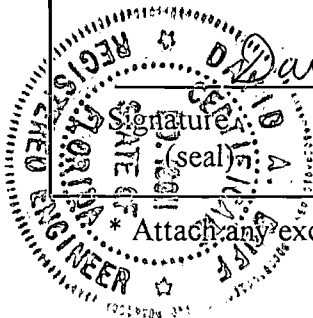
*(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

*(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*

*If the purpose of this application is to obtain a Title V source air operation permit (check here [ ] if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.*

*If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [X] if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

*If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ] if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*



*David A. Buff*

*4/23/97*

Signature (seal)

Date

\* Attach any exception to certification statement.

**Application Contact**

1. Name and Title of Application Contact: <b>James Meriwether, Environmental Manager</b>
2. Application Contact Mailing Address:  Organization/Firm: <b>Okeelanta Power Limited Partnership</b> Street Address: <b>P.O. Box 8</b> City: <b>South Bay</b> State: <b>FL</b> Zip Code: <b>33493</b>
3. Application Contact Telephone Numbers:  Telephone: <b>(561) 993-1003</b> Fax: <b>(561) 996-6596</b>

**Application Comment**

<b>Organization/Firm Official Mailing Address: P.O. Box 8; 6 Miles South of South Bay, Highway 27</b>
---

## II. FACILITY INFORMATION

### A. GENERAL FACILITY INFORMATION

#### Facility Location and Type

1. Facility UTM Coordinates: Zone: <b>17</b> East (km): <b>524.9</b> North (km): <b>2940.1</b>			
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): <b>26 / 35 / 0</b> Longitude: (DD/MM/SS): <b>80 / 45 / 0</b>			
3. Governmental Facility Code: <b>0</b>	4. Facility Status Code: <b>A</b>	5. Facility Major Group SIC Code: <b>49</b>	6. Facility SIC(s): <b>4911</b>
7. Facility Comment (limit to 500 characters): <b>Facility Street Address: Six Miles South of South Bay on Highway 27. Facility consists of 74.9 MW electricity generating Cogen firing biomass, oil, coal or tire-derived fuel.</b>			

#### Facility Contact

1. Name and Title of Facility Contact: <b>James M. Meriwether, Environmental Manager</b>
2. Facility Contact Mailing Address: Organization/Firm: <b>Okeelanta Power Limited Partnership</b> Street Address: <b>P.O. Box 8</b> City: <b>South Bay</b> State: <b>FL</b> Zip Code: <b>33493</b>
3. Facility Contact Telephone Numbers: Telephone: <b>(561) 993-1003</b> Fax: <b>(561) 996-6596</b>

**Facility Regulatory Classifications**

1. Small Business Stationary Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
2. Title V Source? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3. Synthetic Non-Title V Source? <input type="checkbox"/> Yes, <input checked="" type="checkbox"/> No
4. Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5. Synthetic Minor Source of Pollutants Other than HAPs? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6. Major Source of Hazardous Air Pollutants (HAPs)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
7. Synthetic Minor Source of HAPs? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
8. One or More Emissions Units Subject to NSPS? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9. One or More Emissions Units Subject to NESHAP? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
10. Title V Source by EPA Designation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
11. Facility Regulatory Classifications Comment (limit to 200 characters):          

**B. FACILITY REGULATIONS**

**Rule Applicability Analysis** (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

**Not Applicable**



**List of Applicable Regulations** (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

**62-210.300**  
**62-212.300**

## C. FACILITY POLLUTANTS

### Facility Pollutant Information

1. Pollutant Emitted	2. Pollutant Classification
PM Particulate Matter - Total	A
PM10 Particulate Matter - PM10	A
SO2 Sulfur Dioxide	A
NOx Nitrogen Oxides	A
CO Carbon Monoxide	A
VOC Volatile Organic Compounds	A
PB Lead - Total	B
H114 Mercury Compounds	B
H021 Beryllium Compounds	B
FL Fluorides - Total	B
SAM Sulfuric Acid Mist	B
HAPS Total Hazardous Air Pollutants	A
T006 Ammonia (anhydrous)	A
H106 Hydrochloric acid	A
H107 Hydrogen fluoride [Hydrofluoric aci	A

**D. FACILITY POLLUTANT DETAIL INFORMATION**

**Facility Pollutant Detail Information:**

1. Pollutant Emitted:		
2. Requested Emissions Cap:	(lb/hr)	(tons/yr)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment (limit to 400 characters):		

**Facility Pollutant Detail Information:**

1. Pollutant Emitted:		
2. Requested Emissions Cap:	(lb/hr)	(tons/yr)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment (limit to 400 characters):		

## E. FACILITY SUPPLEMENTAL INFORMATION

### Supplemental Requirements for All Applications

1. Area Map Showing Facility Location: <input checked="" type="checkbox"/> Attached, Document ID: <u>PART B</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Facility Plot Plan: <input checked="" type="checkbox"/> Attached, Document ID: <u>PART B</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
3. Process Flow Diagram(s): <input checked="" type="checkbox"/> Attached, Document ID(s): <u>PART B</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: <input checked="" type="checkbox"/> Attached, Document ID: <u>PART B</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Fugitive Emissions Identification: <input checked="" type="checkbox"/> Attached, Document ID: <u>PART B</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
6. Supplemental Information for Construction Permit Application: <input checked="" type="checkbox"/> Attached, Document ID: <u>PART B</u> <input type="checkbox"/> Not Applicable

### Additional Supplemental Requirements for Category I Applications Only

7. List of Proposed Exempt Activities: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
8. List of Equipment/Activities Regulated under Title VI: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Equipment/Activities On site but Not Required to be Individually Listed <input checked="" type="checkbox"/> Not Applicable
9. Alternative Methods of Operation: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

<p>11. Identification of Additional Applicable Requirements:</p> <p><input type="checkbox"/> Attached, Document ID: _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>
<p>12. Compliance Assurance Monitoring Plan:</p> <p><input type="checkbox"/> Attached, Document ID: _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>
<p>13. Risk Management Plan Verification:</p> <p><input type="checkbox"/> Plan Submitted to Implementing Agency - Verification Attached Document ID: _____</p> <p><input type="checkbox"/> Plan to be Submitted to Implementing Agency by Required Date</p> <p><input checked="" type="checkbox"/> Not Applicable</p>
<p>14. Compliance Report and Plan</p> <p><input type="checkbox"/> Attached, Document ID: _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>
<p>15. Compliance Statement (Hard-copy Required)</p> <p><input type="checkbox"/> Attached, Document ID: _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

**A. TYPE OF EMISSIONS UNIT  
(Regulated and Unregulated Emissions Units)****Type of Emissions Unit Addressed in This Section**

1. Regulated or Unregulated Emissions Unit? Check one:

] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one:

] This Emissions Unit information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

**B. GENERAL EMISSIONS UNIT INFORMATION  
(Regulated and Unregulated Emissions Units)**

**Emissions Unit Description and Status**

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): <b>Boiler A fired by Biomass/No.2 oil/coal/TDF</b>		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [ ] Unknown <b>001</b>		
3. Emissions Unit Status Code: <b>A</b>	4. Acid Rain Unit? [ ] Yes [ <b>x</b> ] No	5. Emissions Unit Major Group SIC Code: <b>49</b>
6. Emissions Unit Comment (limit to 500 characters): <b>74.9 MW gross generating capacity for entire facility.</b>		

**Emissions Unit Control Equipment Information**

**A.**

1. Description (limit to 200 characters):  <b>ESP - Electrostatic Precipitator</b>
2. Control Device or Method Code: <b>10</b>

**B.**

1. Description (limit to 200 characters):  <b>Selective Non-Catalytic reduction for NOx</b>
2. Control Device or Method Code: <b>107</b>

**C.**

1. Description (limit to 200 characters):  <b>Activated Carbon injection system.</b>
2. Control Device or Method Code: <b>48</b>



**C. EMISSIONS UNIT DETAIL INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Details**

1. Initial Startup Date:		
2. Long-term Reserve Shutdown Date:		
3. Package Unit: Manufacturer:	Model Number:	
4. Generator Nameplate Rating:	75 MW	
5. Incinerator Information:		
	Dwell Temperature:	°F
	Dwell Time:	seconds
	Incinerator Afterburner Temperature:	°F

**Emissions Unit Operating Capacity**

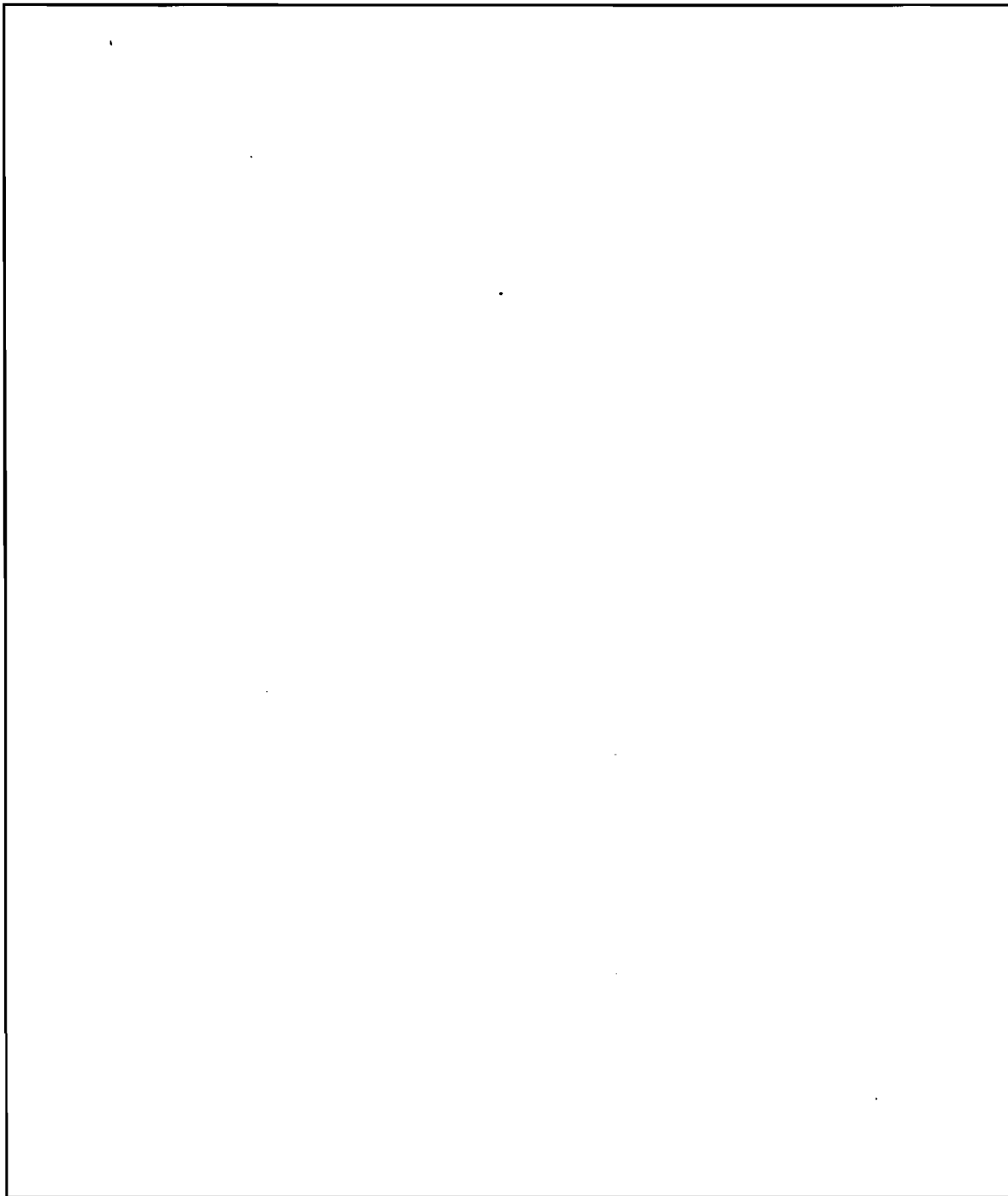
1. Maximum Heat Input Rate:	715	mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Operating Capacity Comment (limit to 200 characters):		
<b>Maximum heat input rates: Biomass - 715 MMBtu/hr; No.2 Fuel Oil - 490 MMBtu/hr; Coal - 490 MMBtu/hr; Tire-derived fuel - 340 MMBtu/hr</b>		

**Emissions Unit Operating Schedule**

1. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/yr	8,760 hours/yr

**D. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)**

**Rule Applicability Analysis** (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)



**List of Applicable Regulations** (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

40 CFR 60, Subpart Da  
40 CFR 60, Subpart Ea and Cb (record keeping only)  
62-296.570 Reasonably Avail. Control Technology

**E. EMISSION POINT (STACK/VENT) INFORMATION  
(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: <b>BLR A</b>	
2. Emission Point Type Code:  <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):   	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:   	
5. Discharge Type Code: <input type="checkbox"/> D <input type="checkbox"/> F <input type="checkbox"/> H <input type="checkbox"/> P <input type="checkbox"/> R <input checked="" type="checkbox"/> V <input type="checkbox"/> W	
6. Stack Height:	<b>225</b> feet
7. Exit Diameter:	<b>10</b> feet
8. Exit Temperature:	<b>330</b> °F

9. Actual Volumetric Flow Rate:	270,000	acfm
10. Percent Water Vapor:		%
11. Maximum Dry Standard Flow Rate:		dscfm
12. Nonstack Emission Point Height:		feet
13. Emission Point UTM Coordinates:		
Zone:	East (km):	North (km):
14. Emission Point Comment (limit to 200 characters):		
<p><b>Stack parameters based on biomass firing.</b></p>		

**F. SEGMENT (PROCESS/FUEL) INFORMATION  
(Regulated and Unregulated Emissions Units)**

**Segment Description and Rate:** Segment  1  of  5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):  <b>Electric Utility boiler - bagasse</b>	
2. Source Classification Code (SCC):  <b>1-01-011-01</b>	
3. SCC Units: <b>Tons Burned</b>	
4. Maximum Hourly Rate:  <b>84.118</b>	5. Maximum Annual Rate:  <b>736,874</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:  <b>0.05</b>	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):  <b>Maximum percent Sulfur: 0.05. Maximum Percent Ash: 0.42. Million Btu per SCC Unit: 8.5. Total biomass all three boilers = 1,352,941 TPY.</b>	

**Segment Description and Rate:** Segment  2  of  5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): <b>Electric Utility Boiler - Wood Fired Boiler</b>	
2. Source Classification Code (SCC): <b>1-01-009-03</b>	
3. SCC Units: <b>Tons Burned</b>	
4. Maximum Hourly Rate: <b>65</b>	5. Maximum Annual Rate: <b>569,400</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: <b>0.11</b>	8. Maximum Percent Ash: <b>3.2</b>
9. Million Btu per SCC Unit: <b>11</b>	
10. Segment Comment (limit to 200 characters): <b>Maximum Percent Sulfur: 0.11. Total biomass all three boilers = 1,352,941 TPY.</b>	

**F. SEGMENT (PROCESS/FUEL) INFORMATION**  
**(Regulated and Unregulated Emissions Units)**

**Segment Description and Rate:** Segment 3 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):  <b>Electric Utility Boiler - Distillate Oil - Grades 1 and 2 oil</b>	
2. Source Classification Code (SCC):  <b>1-01-005-01</b>	
3. SCC Units:  <b>Thousand Gallons Burned</b>	
4. Maximum Hourly Rate:  <b>3.551</b>	5. Maximum Annual Rate:  <b>7,745</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:  <b>0.05</b>	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:  <b>138</b>	
10. Segment Comment (limit to 200 characters):  <b>Maximum Annual Rate: 7,745,000. This represents 24.9% oil firing on a heat input basis. Total No.2 Fuel Oil all three boilers = 19,533,086 gal/yr.</b>	



**Segment Description and Rate:** Segment 4 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): <b>Electric Utility boiler - Butiminous Coal - Spreader Stoker</b>	
2. Source Classification Code (SCC): <b>1-01-002-04</b>	
3. SCC Units: <b>Tons Burned</b>	
4. Maximum Hourly Rate: <b>20.417</b>	5. Maximum Annual Rate: <b>61,172</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: <b>0.7</b>	8. Maximum Percent Ash: <b>3.7</b>
9. Million Btu per SCC Unit: <b>24</b>	
10. Segment Comment (limit to 200 characters): <b>Total coal all three boilers = 69,720 TPY (15.1% coal burning on a heat input basis). The combined heat input for coal and oil &lt;25% on a calendar quarter basis.</b>	

**F. SEGMENT (PROCESS/FUEL) INFORMATION**  
**(Regulated and Unregulated Emissions Units)**

**Segment Description and Rate:** Segment 5 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):  <b>Electric Utility Boiler - Solid Waste - Tire Derived Fuel</b>	
2. Source Classification Code (SCC):  <b>1-01-012-01</b>	
3. SCC Units:  <b>Tons Burned</b>	
4. Maximum Hourly Rate:  <b>11</b>	5. Maximum Annual Rate:  <b>81,246</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:  <b>1.2</b>	8. Maximum Percent Ash:  <b>5</b>
9. Million Btu per SCC Unit:  <b>31</b>	
10. Segment Comment (limit to 200 characters):  <b>Maximum hourly rate based on 340 MMBtu/hr TDF. Total TDF all three boilers = 81,246 TPY. This represents 9.0% TDF burning on a weight basis.</b>	

**Segment Description and Rate:** Segment   of

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):	
2. Source Classification Code (SCC):	
3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):	

**G. EMISSIONS UNIT POLLUTANTS  
(Regulated and Unregulated Emissions Units)**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	010		EL
PM10	010		EL
SO2			EL
NOx	107		EL
CO			EL
VOC			EL
PB	010		EL
SAM			EL
FL			EL
H114	048		EL
H021			EL
HAPS			NS
H106			NS
H107			NS

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

**Pollutant Detail Information:**

1. Pollutant Emitted: <b>PM</b>	
2. Total Percent Efficiency of Control:	<b>99 %</b>
3. Potential Emissions:	<b>21.5 lb/hour                      94.17 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions:  <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr	
6. Emission Factor: <b>0.03 lb/MMBtu</b>  Reference: <b>40 CFR 60 Subpart Da</b>	
7. Emissions Method Code:  <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters):  <b>0.03 lb/MMBtu x 715 MMBtu/hr = 21.5 lb/hr</b>	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>172.5 TPY total for all boilers</b>	

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>0.03 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>21.5 lb/hour</b>	<b>94.17 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test using EPA Method 5.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Basis for Allowable Emissions Code: NSPS. Maximum lb/hr based on biomass firing.</b>		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)****Pollutant Detail Information:**

1. Pollutant Emitted: <b>PM10</b>		
2. Total Percent Efficiency of Control:		<b>99 %</b>
3. Potential Emissions:	<b>21.5 lb/hour</b>	<b>94.17 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr		
6. Emission Factor:		<b>0.03 lb/MMBtu</b>
Reference: <b>40 CFR 60 Subpart Da</b>		
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 <input checked="" type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters): <b>0.03 lb/MMBtu x 715 MMBtu/hr = 21.5 lb/hr</b>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): <b>172.5 TPY total for all boilers</b>		

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

Boiler A  
 Particulate Matter - PM10

A.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.03 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>21.5 lb/hour</b>	<b>94.17 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack testing using EPA Method 5.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Basis for Allowable Emissions Code: NSPS. Maximum lb/hr based on biomass firing.</b>		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		



**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)****Pollutant Detail Information:**

1. Pollutant Emitted: <b>SO2</b>	
2. Total Percent Efficiency of Control:	%
3. Potential Emissions:	<b>588 lb/hour</b> <b>1,067.5 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions:  <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr	
6. Emission Factor: <b>1.2 lb/MMBtu</b>  Reference: <b>40 CFR 60 Subpart Da</b>	
7. Emissions Method Code:  <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters):  <b>1.2 lb/MMBtu x 490 MMBtu/hr = 588.0 lb/hr</b>	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>1,154.3 TPY total for all three boilers.</b>	

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>0.1 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>71.5 lb/hour</b>	<b>100.2 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Continuous SO2 monitor</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Requested Allowable Emissions: 0.1 lb/MMBtu 24-hr avg; Annual- 0.02 lb/MMBtu for bagasse, 0.05 lb/MMBtu for wood. Based on biomass firing.</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>1.2 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>408 lb/hour</b>	<b>1,008 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Continuous SO2 monitor.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Requested Allowable Emissions: 1.2 lb/MMBtu, 24-hr avg.; 0.8 lb/MMBtu, annual avg. Based on tire-derived fuel firing. Annual TPY: 81,246 TPY TDF x 15,500 Btu/lb x 0.8 lb/MMBtu = 1,007.6 TPY</b>		

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>12 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>588 lb/hour</b>	<b>880.8 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Limit coal 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>Basis for Allowable Emissions Code: NSPS. Based on coal firing.</b>		

B.

1. Basis for Allowable Emissions Code: <b>RULE</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.05 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>225 lb/hour</b>	<b>36.7 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 and BACT.</b>		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

**Pollutant Detail Information:**

1. Pollutant Emitted: <b>NOx</b>	
2. Total Percent Efficiency of Control:	<b>40 %</b>
3. Potential Emissions:	<b>107.3 lb/hour                      470 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions:  <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr	
6. Emission Factor: <b>0.15 lb/MMBtu</b>  Reference: <b>NOx control system</b>	
7. Emissions Method Code:  <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters):  <b>0.15 lb/MMBtu x 715 MMBtu/hr = 107.3 lb/hr</b>	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>862.5 TPY total for all boilers</b>	

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

A.

1. Basis for Allowable Emissions Code: <b>ESCPSD</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.15 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>107.3 lb/hour</b>	<b>470 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test using EPA Method 7 or 7E.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on biomass firing</b>		

B.

1. Basis for Allowable Emissions Code: <b>ESCPSD</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.15 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>67.5 lb/hour</b>	<b>110.1 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</b>		

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

A.

1. Basis for Allowable Emissions Code: <b>ESCPSD</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.17 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>83.3 lb/hour</b>	<b>124.8 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Limit coal 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 coal firing</b>		

B.

1. Basis for Allowable Emissions Code: <b>ESCPSD</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.15 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>51 lb/hour</b>	<b>188.9 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test using EPA Method 7 or 7E.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on tire-derived fuel firing. Limit TDF firing to 40.2% on a heat input basis.</b>		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)****Pollutant Detail Information:**

1. Pollutant Emitted: <b>CO</b>	
2. Total Percent Efficiency of Control:	%
3. Potential Emissions:	<b>250.3 lb/hour</b> <b>1,096 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions:  <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr	
6. Emission Factor: <b>0.35 lb/MMBtu</b>  Reference: <b>Boiler Design</b>	
7. Emissions Method Code:  <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters):  <b>0.35 lb/MMBtu x 715 MMBtu/hr = 250.3 lb/hr. Limit based on 24-hour average.</b>	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>2,012.5 TPY total for all boilers</b>	

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>0.2 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>98 lb/hour</b>	<b>146.8 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 coal firing. Limit coal burning to 24.9% each boiler. 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>63 lb/hour</b>	<b>440.8 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 tire-derived fuel firing. Limit based on 24-hour average. TDF firing limited to 40.2% for each boiler, heat input basis.</b>		



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>0.2 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>90 lb/hour</b>	<b>146.8 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>		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)****Pollutant Detail Information:**

1. Pollutant Emitted: <b>VOC</b>	
2. Total Percent Efficiency of Control:	%
3. Potential Emissions:	<b>42.9 lb/hour</b> <b>187.9 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions:  <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3      _____ to _____ tons/yr	
6. Emission Factor: <b>0.06 lb/MMBtu</b>  Reference: <b>Boiler Design</b>	
7. Emissions Method Code:  <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters):  <b>0.06 lb/MMBtu x 715 MMBtu/hr = 42.9 lb/hr</b>	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>Based on biomass firing. Total for all three boilers = 345.0 TPY</b>	

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

Volatile Organic Compounds

A.

1. Basis for Allowable Emissions Code: <b>ESCNAA</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>42.9 lb/hour</b>	<b>187.9 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test using EPA Method 25 or 25A</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on biomass firing.</b>		

B.

1. Basis for Allowable Emissions Code: <b>ESCNAA</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.03 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>13.5 lb/hour</b>	<b>22 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>See Comment</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 No.2 fuel oil burning to 24.9% for any single boiler.</b>		

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

Volatile Organic Compounds

A.

1. Basis for Allowable Emissions Code: <b>ESCNAA</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.03 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>14.7 lb/hour</b>	<b>22 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Limit coal 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 coal firing</b>		

B.

1. Basis for Allowable Emissions Code: <b>ESCNAA</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>10.8 lb/hour</b>	<b>75.6 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>EPA Method 25 or 25A annually</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on tire-derived fuel firing. TDF firing limited to 40.2% for any single boiler (heat input basis).</b>		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)****Pollutant Detail Information:**

1. Pollutant Emitted: <b>PB</b>	
2. Total Percent Efficiency of Control:	<b>99 %</b>
3. Potential Emissions:	<b>0.114 lb/hour                      0.454 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions:  [ ] 1    [ ] 2    [ ] 3    _____ to _____ tons/yr	
6. Emission Factor:	<b>1.6 E-04 lb/MMBtu</b>  Reference: <b>See Part B</b>
7. Emissions Method Code:  [ ] 0    [ ] 1    [ ] 2    [ ] 3    [ ] 4 <input checked="" type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters):  <b>1.6 E-04 lb/MMBtu x 715 MMBtu/hr = 0.114 lb/hr.</b>	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>Maximum emissions due to coal firing. Facility emissions are 0.454 TPY total all boilers.</b>	

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>1.6 E-04 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.114 lb/hour</b>	<b>0.067 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Stack test using EPA Method 12 once every 5 years.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Biomass Firing</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>8.9 E-07 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0004 lb/hour</b>	<b>0.0007 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Stack test using EPA Method 12 once every 5 years.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>No.2 fuel oil firing</b>		

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>6.4 E-05 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.031</b> lb/hour	<b>0.047</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack test using EPA Method 12 once every 5 years.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Coal Firing</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>4.2 E-05 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0143</b> lb/hour	<b>0.053</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack test using EPA Method 12 once every 5 years.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>TDF firing</b>		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)****Pollutant Detail Information:**

1. Pollutant Emitted: <b>SAM</b>		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	<b>17.6 lb/hour</b>	<b>27.8 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:		
[ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr		
6. Emission Factor:		<b>0.036 lb/MMBtu</b>
Reference: <b>See Part B</b>		
7. Emissions Method Code:		
[ ] 0 [ ] 1 [ ] 2 <input checked="" type="checkbox"/> 3 [ ] 4 [ ] 5		
8. Calculation of Emissions (limit to 600 characters):		
<b>0.036 lb/MMBtu x 490 MMBtu/hr = 17.6 lb/hr</b>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):		
<b>Based on coal firing, 34.6 TPY total for all boilers.</b>		



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>0.003 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>2.2 lb/hour</b>	<b>1.9 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>EPA Method 8 once every 5 years.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on biomass firing</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>0.0015 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.74 lb/hour</b>	<b>1.1 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>EPA Method 8 once every 5 years.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on No.2 fuel oil firing.</b>		

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>0.01 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>17.6 lb/hour</b>	<b>26.4 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>EPA Method 8 once every 5 years.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on coal firing</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>0.01 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>3.4 lb/hour</b>	<b>8.7 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>EPA Method 8 once every 5 years.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on tire-derived fuel firing.</b>		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)****Pollutant Detail Information:**

1. Pollutant Emitted: <b>FL</b>		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	<b>11.8 lb/hour</b>	<b>17.6 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:  [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr		
6. Emission Factor:		<b>0.024 lb/MMBtu</b>
Reference: <b>See Part B</b>		
7. Emissions Method Code:  [ ] 0 [ ] 1 <input checked="" type="checkbox"/> 2 [ ] 3 [ ] 4 [ ] 5		
8. Calculation of Emissions (limit to 600 characters):  <b>0.024 lb/MMBtu x 490 MMBtu/hr = 11.8 lb/hr</b>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>Based on coal firing. Total emissions from all three boilers limited to 21.23 TPY.</b>		

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>6.3 E-06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0031</b> lb/hour	<b>0.0046</b> tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on No.2 fuel oil firing.</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>0.024 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>11.8</b> lb/hour	<b>17.6</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>EPA Method 13A or 13B once every 5 years.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on coal firing.</b>		

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>6.5 E-04 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.22 lb/hour</b>	<b>0.82 tons/year</b>
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on TDF firing.</b>		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)****Pollutant Detail Information:**

1. Pollutant Emitted: <b>H114</b>		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	<b>0.0041</b> lb/hour	<b>0.0173</b> tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:		
[   ] 1    [   ] 2    [   ] 3    _____ to _____ tons/yr		
6. Emission Factor:		<b>See Part B</b>
Reference: <b>See Part B</b>		
7. Emissions Method Code:		
[ <input checked="" type="checkbox"/> ] 0    [   ] 1    [   ] 2    [   ] 3    [   ] 4    [   ] 5		
8. Calculation of Emissions (limit to 600 characters):		
<b>Annual TPY limited by permit condition.</b>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):		
<b>Total emissions all three boilers 0.030 TPY.</b>		

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>4 E-06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0029</b> lb/hour	<b>0.0152</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack testing using EPA Method 101A.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on wood waste firing.</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>543 E-06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0045</b> lb/hour	<b>0.0152</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack testing using EPA method 101A.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on bagasse firing. Limit subject to revision based on stack testing.</b>		

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>24 E-06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0012</b> lb/hour	<b>0.0018</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack testing using EPA Method 101A.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on No.2 fuel oil firing.</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>84 E-06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0041</b> lb/hour	<b>0.0062</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack testing using EPA Method 101A.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on coal firing.</b>		



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>6.5 E-06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0022</b> lb/hour	<b>0.0082</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack testing using EPA Method 101A.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on TDF firing.</b>		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)****Pollutant Detail Information:**

1. Pollutant Emitted: <b>H021</b>	
2. Total Percent Efficiency of Control:	<b>99 %</b>
3. Potential Emissions:	<b>0.0029 lb/hour                      0.0043 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions:  <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr	
6. Emission Factor:  Reference: <b>See Part B</b>	
7. Emissions Method Code:  <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters):  <b>490 MMBtu/hr x 5.9 E-06 lb/MMBtu = 0.0029 lb/hr</b>	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>Max lb/hr based on coal firing. Total emissions all three boilers limited to 0.0052 TPY.</b>	

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>5.9 E-06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0029</b> lb/hour	<b>0.0043</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack testing using EPA Method 104.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on coal firing.</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>3.5 E-07 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0002</b> lb/hour	<b>0.0003</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack testing using EPA Method 104</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on No.2 fuel oil firing.</b>		

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>4.5 E-07 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0002</b> lb/hour	<b>0.0006</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack testing using EPA Method 104.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on TDF firing.</b>		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**I. VISIBLE EMISSIONS INFORMATION**  
**(Regulated Emissions Units Only)**

**Visible Emissions Limitations:** Visible Emissions Limitation 1 of 1

1.	Visible Emissions Subtype: <b>VE20</b>
2.	Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3.	Requested Allowable Opacity Normal Conditions: <b>20</b> %      Exceptional Conditions: <b>27</b> % Maximum Period of Excess Opacity Allowed: <b>6</b> min/hour
4.	Method of Compliance: <b>EPA Method 9</b>
5.	Visible Emissions Comment (limit to 200 characters):

**Visible Emissions Limitations:** Visible Emissions Limitation \_\_\_\_\_ of \_\_\_\_\_

1.	Visible Emissions Subtype:
2.	Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3.	Requested Allowable Opacity Normal Conditions: _____ %      Exceptional Conditions: _____ % Maximum Period of Excess Opacity Allowed: _____ min/hour
4.	Method of Compliance:
5.	Visible Emissions Comment (limit to 200 characters):

**J. CONTINUOUS MONITOR INFORMATION  
(Regulated Emissions Units Only)**

**Continuous Monitoring System** Continuous Monitor 1 of 5

1. Parameter Code: <b>VE</b>	2. Pollutant(s):
3. CMS Requirement: [ <input checked="" type="checkbox"/> ] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: <b>Durag</b> Model Number: <b>D-R281AV</b> Serial Number: <b>31019</b>	
5. Installation Date: <b>01 Oct 1995</b>	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): <b>40 CFR 60, Subpart Da</b>	

**Continuous Monitoring System** Continuous Monitor 2 of 5

1. Parameter Code: <b>NOx</b>	2. Pollutant(s):
3. CMS Requirement: [ <input checked="" type="checkbox"/> ] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: <b>Thermo Environmental Instruments</b> Model Number: <b>42D</b> Serial Number: <b>42D-52618-292</b>	
5. Installation Date: <b>01 Oct 1995</b>	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): <b>40 CFR 60, Subpart Da</b>	

**J. CONTINUOUS MONITOR INFORMATION  
(Regulated Emissions Units Only)**

**Continuous Monitoring System** Continuous Monitor 3 of 5

1. Parameter Code: <b>SO2</b>	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ <b>x</b> ] Other	
4. Monitor Information: Monitor Manufacturer: <b>Thermo Environmental Instruments</b> Model Number: <b>43B</b> Serial Number: <b>43B-51400-292</b>	
5. Installation Date: <b>01 Oct 1995</b>	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): <b>40 CFR 60, Subpart Da</b>	

**Continuous Monitoring System** Continuous Monitor 4 of 5

1. Parameter Code: <b>CO</b>	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ <b>x</b> ] Other	
4. Monitor Information: Monitor Manufacturer: <b>Thermo Environmental Instruments</b> Model Number: <b>48</b> Serial Number: <b>48-45334-273</b>	
5. Installation Date: <b>01 Oct 1995</b>	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	

**J. CONTINUOUS MONITOR INFORMATION  
(Regulated Emissions Units Only)**

**Continuous Monitoring System** Continuous Monitor 5 of 5

1. Parameter Code: <b>O2</b>	2. Pollutant(s):
3. CMS Requirement: [ <input checked="" type="checkbox"/> ] Rule [ <input type="checkbox"/> ] Other	
4. Monitor Information: Monitor Manufacturer: <b>Yokogawa</b> Model Number: <b>ZA8C</b> Serial Number: <b>JJ113MA345</b>	
5. Installation Date: <b>01 Oct 1995</b>	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): <b>40 CFR 60, Subpart Da</b>	

**Continuous Monitoring System** Continuous Monitor \_\_\_\_ of \_\_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [ <input type="checkbox"/> ] Rule [ <input type="checkbox"/> ] Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	



**K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT  
TRACKING INFORMATION  
(Regulated and Unregulated Emissions Units)**

**PSD Increment Consumption Determination**

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

- The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and the emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and the emissions unit consumes increment.
- For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

## 2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

- ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
- [ ] ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and the source consumes increment.
- [ ] ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and the source consumes increment.
- [ ] ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.
- [ ] ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3.	Increment Consuming/Expanding Code:		
PM	<input checked="" type="checkbox"/> ] C	[ ] E	[ ] Unknown
SO <sub>2</sub>	<input checked="" type="checkbox"/> ] C	[ ] E	[ ] Unknown
NO <sub>2</sub>	<input checked="" type="checkbox"/> ] C	[ ] E	[ ] Unknown
4.	Baseline Emissions:		
PM	0 lb/hour	0	tons/year
SO <sub>2</sub>	0 lb/hour	0	tons/year
NO <sub>2</sub>		0	tons/year
5.	PSD Comment (limit to 200 characters):		

**L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements for All Applications**

1.	Process Flow Diagram	<input checked="" type="checkbox"/> Attached, Document ID: <u>PART B</u>	<input type="checkbox"/> Waiver Requested
		<input type="checkbox"/> Not Applicable	
2.	Fuel Analysis or Specification	<input checked="" type="checkbox"/> Attached, Document ID: <u>PART B</u>	<input type="checkbox"/> Waiver Requested
		<input type="checkbox"/> Not Applicable	
3.	Detailed Description of Control Equipment	<input checked="" type="checkbox"/> Attached, Document ID: <u>PART B</u>	<input type="checkbox"/> Waiver Requested
		<input type="checkbox"/> Not Applicable	
4.	Description of Stack Sampling Facilities	<input type="checkbox"/> Attached, Document ID: _____	<input type="checkbox"/> Waiver Requested
		<input checked="" type="checkbox"/> Not Applicable	
5.	Compliance Test Report	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
		<input type="checkbox"/> Previously Submitted, Date: _____	
6.	Procedures for Startup and Shutdown	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
7.	Operation and Maintenance Plan	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
8.	Supplemental Information for Construction Permit Application	<input checked="" type="checkbox"/> Attached, Document ID: <u>PART B</u>	<input type="checkbox"/> Not Applicable
9.	Other Information Required by Rule or Statute	<input checked="" type="checkbox"/> Attached, Document ID: <u>PART B</u>	<input type="checkbox"/> Not Applicable

**Additional Supplemental Requirements for Category I Applications Only**

10. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
11. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Acid Rain Permit Application (Hard Copy Required) <input type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

**A. TYPE OF EMISSIONS UNIT  
(Regulated and Unregulated Emissions Units)****Type of Emissions Unit Addressed in This Section**

1. Regulated or Unregulated Emissions Unit? Check one:

] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one:

] This Emissions Unit information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

**B. GENERAL EMISSIONS UNIT INFORMATION  
(Regulated and Unregulated Emissions Units)**

**Emissions Unit Description and Status**

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): <b>Boiler B fired by Biomass/No.2 oil/coal/TDF</b>		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [ ] Unknown <b>002</b>		
3. Emissions Unit Status Code: <b>A</b>	4. Acid Rain Unit? [ ] Yes [ <b>X</b> ] No	5. Emissions Unit Major Group SIC Code: <b>49</b>
6. Emissions Unit Comment (limit to 500 characters): <b>74.9 MW gross generating capacity for entire facility.</b>		

**Emissions Unit Control Equipment Information**

**A.**

1. Description (limit to 200 characters):  <b>ESP - Electrostatic Precipitator</b>
2. Control Device or Method Code: <b>10</b>

**B.**

1. Description (limit to 200 characters):  <b>Selective Non-Catalytic Reduction for NOx</b>
2. Control Device or Method Code: <b>107</b>

**C.**

1. Description (limit to 200 characters):  <b>Activated Carbon injection system.</b>
2. Control Device or Method Code: <b>48</b>

**C. EMISSIONS UNIT DETAIL INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Details**

1. Initial Startup Date:		
2. Long-term Reserve Shutdown Date:		
3. Package Unit: Manufacturer:	Model Number:	
4. Generator Nameplate Rating:	75 MW	
5. Incinerator Information:		
	Dwell Temperature:	°F
	Dwell Time:	seconds
	Incinerator Afterburner Temperature:	°F

**Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate:	715	mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Operating Capacity Comment (limit to 200 characters):		
<p><b>Maximum heat input rates: Biomass - 715 MMBtu/hr; No.2 Fuel Oil - 490 MMBtu/hr; Coal - 490 MMBtu/hr; Tire-derived fuel - 340 MMBtu/hr</b></p>		

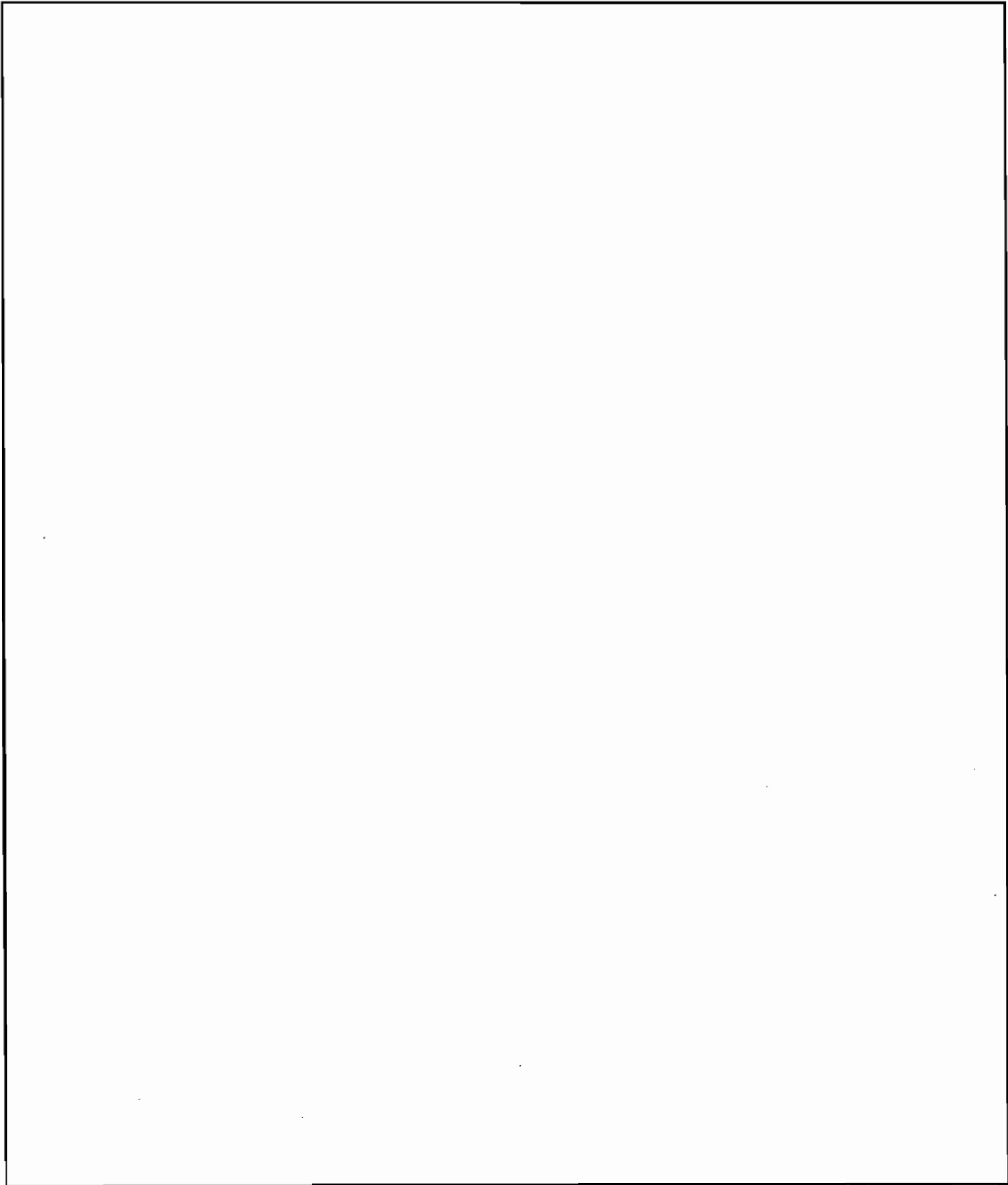
**Emissions Unit Operating Schedule**

1. Requested Maximum Operating Schedule:		
24	hours/day	7
		days/week
52	weeks/yr	8,760
		hours/yr



**D. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)**

**Rule Applicability Analysis** (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)



**List of Applicable Regulations** (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

40 CFR 60, Subpart Da  
40 CFR 60, Subpart Ea and Cb (record keeping only)  
62-296.570 Reasonably Avail. Control Technology

**E. EMISSION POINT (STACK/VENT) INFORMATION  
(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: <b>BLR B</b>	
2. Emission Point Type Code: <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:	
5. Discharge Type Code: <input type="checkbox"/> D <input type="checkbox"/> F <input type="checkbox"/> H <input type="checkbox"/> P <input type="checkbox"/> R <input checked="" type="checkbox"/> V <input type="checkbox"/> W	
6. Stack Height:	<b>225</b> feet
7. Exit Diameter:	<b>10</b> feet
8. Exit Temperature:	<b>330</b> °F

9. Actual Volumetric Flow Rate:	270,000 acfm	
10. Percent Water Vapor:	%	
11. Maximum Dry Standard Flow Rate:	dscfm	
12. Nonstack Emission Point Height:	feet	
13. Emission Point UTM Coordinates:		
Zone:	East (km):	North (km):
14. Emission Point Comment (limit to 200 characters):		
<b>Stack parameters based on biomass firing.</b>		

**F. SEGMENT (PROCESS/FUEL) INFORMATION  
(Regulated and Unregulated Emissions Units)**

**Segment Description and Rate:** Segment  1  of  5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):  <b>Electric Utility boiler - bagasse</b>	
2. Source Classification Code (SCC):  <p style="text-align: center;"><b>1-01-011-01</b></p>	
3. SCC Units:  <p style="text-align: center;"><b>Tons Burned</b></p>	
4. Maximum Hourly Rate:  <p style="text-align: center;"><b>84.118</b></p>	5. Maximum Annual Rate:  <p style="text-align: center;"><b>736,874</b></p>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:  <p style="text-align: center;"><b>0.05</b></p>	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):  <p style="text-align: center;"><b>Maximum percent Sulfur: 0.05. Maximum Percent Ash: 0.42. Million Btu per SCC Unit: 8.5. Total biomass all three boilers = 1,352,941 TPY.</b></p>	

**Segment Description and Rate:** Segment 2 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): <b>Electric Utility Boiler - Wood Fired Boiler</b>	
2. Source Classification Code (SCC): <b>1-01-009-03</b>	
3. SCC Units: <b>Tons Burned</b>	
4. Maximum Hourly Rate: <b>65</b>	5. Maximum Annual Rate: <b>569,400</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: <b>0.11</b>	8. Maximum Percent Ash: <b>3.2</b>
9. Million Btu per SCC Unit: <b>11</b>	
10. Segment Comment (limit to 200 characters): <b>Maximum Percent Sulfur: 0.11. Total biomass all three boilers = 1,352,941 TPY.</b>	

**F. SEGMENT (PROCESS/FUEL) INFORMATION  
(Regulated and Unregulated Emissions Units)**

**Segment Description and Rate:** Segment  3  of  5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):  <b>Electric Utility Boiler - Distillate Oil - Grades 1 and 2 oil</b>	
2. Source Classification Code (SCC):  <p style="text-align: center;"><b>1-01-005-01</b></p>	
3. SCC Units: <p style="text-align: center;"><b>Thousand Gallons Burned</b></p>	
4. Maximum Hourly Rate:  <p style="text-align: center;"><b>3.551</b></p>	5. Maximum Annual Rate:  <p style="text-align: center;"><b>7,745</b></p>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:  <p style="text-align: center;"><b>0.05</b></p>	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:  <p style="text-align: center;"><b>138</b></p>	
10. Segment Comment (limit to 200 characters):  <p style="text-align: center;"><b>Maximum Annual Rate: 7,745,000. This represents 24.9% oil firing on a heat input basis. Total No.2 Fuel Oil all three boilers = 19,533,086 gal/yr.</b></p>	

**Segment Description and Rate:** Segment  4  of  5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): <b>Electric Utility boiler - Butiminous Coal - Spreader Stoker</b>	
2. Source Classification Code (SCC): <b>1-01-002-04</b>	
3. SCC Units: <b>Tons Burned</b>	
4. Maximum Hourly Rate: <b>20.417</b>	5. Maximum Annual Rate: <b>61,172</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: <b>0.7</b>	8. Maximum Percent Ash: <b>3.7</b>
9. Million Btu per SCC Unit: <b>24</b>	
10. Segment Comment (limit to 200 characters): <b>Total coal all three boilers = 69,720 TPY (15.1% coal burning on a heat input basis). The combined heat input for coal and oil &lt;25% on a calendar quarter basis.</b>	



**F. SEGMENT (PROCESS/FUEL) INFORMATION  
(Regulated and Unregulated Emissions Units)**

**Segment Description and Rate:** Segment 5 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):  <b>Electric Utility Boiler - Solid Waste - Tire Derived Fuel</b>	
2. Source Classification Code (SCC):  <b>1-01-012-01</b>	
3. SCC Units:  <b>Tons Burned</b>	
4. Maximum Hourly Rate:  <b>11</b>	5. Maximum Annual Rate:  <b>81,246</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:  <b>1.2</b>	8. Maximum Percent Ash:  <b>5</b>
9. Million Btu per SCC Unit:  <b>31</b>	
10. Segment Comment (limit to 200 characters):  <b>Maximum hourly rate based on 340 MMBtu/hr TDF. Total TDF all three boilers = 81,246 TPY. This represents 9.0% TDF burning on a weight basis.</b>	

**Segment Description and Rate:** Segment   of

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):	
2. Source Classification Code (SCC):	
3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):	

**G. EMISSIONS UNIT POLLUTANTS  
(Regulated and Unregulated Emissions Units)**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	010		EL
PM10	010		EL
SO2			EL
NOx			EL
CO			EL
VOC			EL
PB	010		EL
SAM			EL
FL			EL
H114	048		EL
H021			EL
HAPS			NS
H106			NS
H107			NS

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

**Pollutant Detail Information:**

1. Pollutant Emitted: <b>PM</b>		
2. Total Percent Efficiency of Control:		<b>99 %</b>
3. Potential Emissions:	<b>21.5 lb/hour</b>	<b>94.17 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:  <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr		
6. Emission Factor:		<b>0.03 lb/MMBtu</b>
Reference: <b>40 CFR 60 Subpart Da</b>		
7. Emissions Method Code:  <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters):  <b>0.03 lb/MMBtu x 715 MMBtu/hr = 21.5 lb/hr</b>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>172.5 TPY total for all boilers</b>		

A.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.03 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>21.5 lb/hour</b>	<b>94.17 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test using EPA Method 5</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Basis for Allowable Emissions Code: NSPS. Maximum lb/hr based on biomass firing.</b>		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units Only - Emissions Limited Pollutants Only)****Pollutant Detail Information:**

1. Pollutant Emitted: <b>PM10</b>		
2. Total Percent Efficiency of Control:		<b>99 %</b>
3. Potential Emissions:	<b>21.5 lb/hour</b>	<b>94.17 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:		
[ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr		
6. Emission Factor:		<b>0.03 lb/MMBtu</b>
Reference: <b>40 CFR 60 Subpart Da</b>		
7. Emissions Method Code:		
[ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 <input checked="" type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters):		
<b>0.03 lb/MMBtu x 715 MMBtu/hr = 21.5 lb/hr</b>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):		
<b>172.5 TPY total for all boilers</b>		

A.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.03 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>21.5 lb/hour</b>	<b>94.17 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack testing using EPA Method 5.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Basis for Allowable Emissions Code: NSPS. Maximum lb/hr based on biomass firing.</b>		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

**Pollutant Detail Information:**

1. Pollutant Emitted: <b>SO2</b>		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	<b>588 lb/hour</b>	<b>1,067.5 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:  <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr		
6. Emission Factor:		<b>1.2 lb/MMBtu</b>
Reference: <b>40 CFR 60 Subpart Da</b>		
7. Emissions Method Code:  <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters):  <b>1.2 lb/MMBtu x 490 MMBtu/hr = 588.0 lb/hr</b>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>1,154.3 TPY total for all three boilers.</b>		



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

Boiler B  
 Sulfur Dioxide

A.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.1 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>71.5 lb/hour</b>	<b>100.2 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Continuous SO2 monitor</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):  <b>Requested Allowable Emissions: 0.1 lb/MMBtu 24-hr avg; Annual- 0.02 lb/MMBtu for bagasse, 0.05 lb/MMBtu for wood. Based on biomass firing.</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>1.2 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>408 lb/hour</b>	<b>1,008 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Continuous SO2 monitor.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):  <b>Requested Allowable Emissions: 1.2 lb/MMBtu, 24-hr avg.; 0.8 lb/MMBtu, annual avg. Based on tire-derived fuel firing. Annual TPY: 81,246 TPY TDF x 15,500 Btu/lb x 0.8 lb/MMBtu = 1,007.6 TPY</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>1.2 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>588 lb/hour</b>	<b>880.8 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Limit coal 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>Basis for Allowable Emissions Code: NSPS. Based on coal firing.</b>		

B.

1. Basis for Allowable Emissions Code: <b>RULE</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.05 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>22.5 lb/hour</b>	<b>36.7 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 and BACT.</b>		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

**Pollutant Detail Information:**

1. Pollutant Emitted: <b>NOx</b>		
2. Total Percent Efficiency of Control:	<b>40 %</b>	
3. Potential Emissions:	<b>107.3 lb/hour</b>	<b>470 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:  <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr		
6. Emission Factor:	<b>0.15 lb/MMBtu</b>	
Reference: <b>NOx control system</b>		
7. Emissions Method Code:  <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters):  <b>0.15 lb/MMBtu x 715 MMBtu/hr = 107.3 lb/hr</b>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>862.5 TPY total for all boilers</b>		

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

A.

1. Basis for Allowable Emissions Code: <b>ESCPSD</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.15 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>107.3 lb/hour</b>	<b>470 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test using EPA Method 7 or 7E</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on biomass firing</b>		

B.

1. Basis for Allowable Emissions Code: <b>ESCPSD</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.15 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>67.5 lb/hour</b>	<b>110.1 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</b>		

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

**A.**

1. Basis for Allowable Emissions Code: <b>ESCPSD</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.17 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>83.3 lb/hour</b>	<b>124.8 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Limit coal 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 coal firing</b>		

**B.**

1. Basis for Allowable Emissions Code: <b>ESCPSD</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.15 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>51 lb/hour</b>	<b>188.9 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test using EPA Method 7 or 7E.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on tire-derived fuel firing. Limit TDF firing to 40.2% on a heat input basis.</b>		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

**Pollutant Detail Information:**

1. Pollutant Emitted: <b>CO</b>		
2. Total Percent Efficiency of Control:	%	
3. Potential Emissions:	<b>250.3 lb/hour</b>	<b>1,096 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:		
<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr		
6. Emission Factor: <b>0.35 lb/MMBtu</b>		
Reference: <b>Boiler Design</b>		
7. Emissions Method Code:		
<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters):		
<p><b>0.35 lb/MMBtu x 715 MMBtu/hr = 250.3 lb/hr. Limit based on 24-hour average.</b></p>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):		
<p><b>2,012.5 TPY total for all boilers</b></p>		

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>0.2 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>98 lb/hour</b>	<b>146.8 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 coal firing. Limit coal burning to 24.9% each boiler. 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>63 lb/hour</b>	<b>440.8 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 tire-derived fuel firing. Limit based on 24-hour average. TDF firing limited to 40.2% for each boiler, heat input basis.</b>		

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>0.2 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>90 lb/hour</b>	<b>146.8 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>		



**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

**Pollutant Detail Information:**

1. Pollutant Emitted: <b>VOC</b>		
2. Total Percent Efficiency of Control:	%	
3. Potential Emissions:	<b>42.9 lb/hour</b>	<b>187.9 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:		
<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr		
6. Emission Factor: <b>0.06 lb/MMBtu</b>		
Reference: <b>Boiler Design</b>		
7. Emissions Method Code:		
<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters):		
<p style="margin-left: 40px;"><b>0.06 lb/MMBtu x 715 MMBtu/hr = 42.9 lb/hr</b></p>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):		
<p style="margin-left: 40px;"><b>Based on biomass firing. Total for all three boilers = 345.0 TPY</b></p>		

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

Volatile Organic Compounds

A.

1. Basis for Allowable Emissions Code: <b>ESCNAA</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>429 lb/hour</b>	<b>187.9 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test using EPA Method 25 or 25A</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on biomass firing.</b>		

B.

1. Basis for Allowable Emissions Code: <b>ESCNAA</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.03 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>13.5 lb/hour</b>	<b>22 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>See Comment</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 No.2 fuel oil burning to 24.9% entire facility and for any single boiler.</b>		

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

Volatile Organic Compounds

A.

1. Basis for Allowable Emissions Code: <b>ESCNAA</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.03 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>14.7 lb/hour</b>	<b>22 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Limit coal 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 coal firing</b>		

B.

1. Basis for Allowable Emissions Code: <b>ESCNAA</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>10.8 lb/hour</b>	<b>75.6 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>EPA Method 25 or 25A annually</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on tire-derived fuel firing. TDF firing limited to 40.2% for any single boiler (heat input basis).</b>		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

**Pollutant Detail Information:**

1. Pollutant Emitted: <b>PB</b>		
2. Total Percent Efficiency of Control:		<b>99 %</b>
3. Potential Emissions:	<b>0.114 lb/hour</b>	<b>0.454 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:		
<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr		
6. Emission Factor:		<b>1.6 E-04 lb/MMBtu</b>
Reference: <b>See Part B</b>		
7. Emissions Method Code:		
<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters):		
<b>1.6 E-04 lb/MMBtu x 715 MMBtu/hr = 0.114 lb/hr.</b>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):		
<b>Maximum emissions due to coal firing. Facility emissions are 0.454 TPY total all boilers.</b>		

A.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>1.6 E-04 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.114 lb/hour</b>	<b>0.067 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Stack test using EPA Method 12 once every 5 years.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Biomass Firing</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>8.9 E-07 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0004 lb/hour</b>	<b>0.0007 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Stack test using EPA Method 12 once every 5 years.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>No.2 fuel oil firing</b>		

A.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>64 E-05 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.031 lb/hour</b>	<b>0.047 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Stack test using EPA Method 12 once every 5 years.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Coal Firing</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>42 E-05 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0143 lb/hour</b>	<b>0.053 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Stack test using EPA Method 12 once every 5 years.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>TDF firing</b>		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units Only - Emissions Limited Pollutants Only)****Pollutant Detail Information:**

1. Pollutant Emitted: <b>SAM</b>		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	<b>17.6 lb/hour</b>	<b>27.8 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:		
[ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr		
6. Emission Factor:		<b>0.036 lb/MMBtu</b>
Reference: <b>See Part B</b>		
7. Emissions Method Code:		
[ ] 0 [ ] 1 [ ] 2 <input checked="" type="checkbox"/> 3 [ ] 4 [ ] 5		
8. Calculation of Emissions (limit to 600 characters):		
<b>0.036 lb/MMBtu x 490 MMBtu/hr = 17.6 lb/hr</b>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):		
<b>Based on coal firing, 34.6 TPY total for all boilers.</b>		

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

Boiler B  
Sulfuric Acid Mist

A.

1. Basis for Allowable Emissions Code: <b>OTHER</b>
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: <b>0.003 lb/MMBtu</b>
4. Equivalent Allowable Emissions: <b>22 lb/hour</b> <b>1.9 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>EPA Method 8 once every 5 years.</b>
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on biomass firing</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>0.0015 lb/MMBtu</b>
4. Equivalent Allowable Emissions: <b>0.74 lb/hour</b> <b>1.1 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>EPA Method 8 once every 5 years.</b>
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on No.2 fuel oil firing.</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>0.01 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>17.6 lb/hour</b>	<b>26.4 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>EPA Method 8 once every 5 years.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on coal firing</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>0.01 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>3.4 lb/hour</b>	<b>8.7 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>EPA Method 8 once every 5 years.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on tire-derived fuel firing.</b>		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

**Pollutant Detail Information:**

1. Pollutant Emitted: <b>FL</b>		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	<b>11.8 lb/hour</b>	<b>17.6 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:  <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr		
6. Emission Factor: <b>0.024 lb/MMBtu</b>  Reference: <b>See Part B</b>		
7. Emissions Method Code:  <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters):  <b>0.024 lb/MMBtu x 490 MMBtu/hr = 11.8 lb/hr</b>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>Based on coal firing. Total emissions from all three boilers limited to 21.23 TPY.</b>		

A.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>6.3 E-06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0031 lb/hour</b>	<b>0.0046 tons/year</b>
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on No.2 fuel oil firing.</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>0.024 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>11.8 lb/hour</b>	<b>17.6 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>EPA Method 13A or 13B once every 5 years.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on coal firing.</b>		

A.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>6.5 E-04 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.22</b> lb/hour	<b>0.82</b> tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on TDF firing.</b>		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

**Pollutant Detail Information:**

1. Pollutant Emitted: <b>H114</b>		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	<b>0.0041 lb/hour</b>	<b>0.0173 tons/year</b>
4. Synthetically Limited?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No ,
5. Range of Estimated Fugitive/Other Emissions:	[ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr	
6. Emission Factor:	<b>See Part B</b>	
Reference:	<b>See Part B</b>	
7. Emissions Method Code:	[ <input checked="" type="checkbox"/> ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5	
8. Calculation of Emissions (limit to 600 characters):	<b>Annual TPY limited by permit condition.</b>	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):	<b>Total emissions all three boilers 0.030 TPY.</b>	

**A.**

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>4 E-06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0029</b> lb/hour	<b>0.0152</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack testing using EPA Method 101A.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on wood waste firing.</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>543 E-06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0045</b> lb/hour	<b>0.0152</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack testing using EPA Method 101A.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on bagasse firing. Limit subject to revision based on stack testing.</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>24 E-06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0012</b> lb/hour	<b>0.0018</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack testing using EPA Method 101A.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on No.2 oil firing.</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>8.4 E-06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0041</b> lb/hour	<b>0.0062</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack testing using EPA Method 101A.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on coal firing.</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>6.5 E-06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0022</b> lb/hour	<b>0.0082</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack testing using EPA Method 101A.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on TDF firing.</b>		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		



**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units Only - Emissions Limited Pollutants Only)****Pollutant Detail Information:**

1. Pollutant Emitted: <b>H021</b>		
2. Total Percent Efficiency of Control:		<b>99 %</b>
3. Potential Emissions:	<b>0.0029 lb/hour</b>	<b>0.0043 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:		
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3 _____ to _____ tons/yr
6. Emission Factor:		
Reference: <b>See Part B</b>		
7. Emissions Method Code:		
<input checked="" type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
8. Calculation of Emissions (limit to 600 characters):		
<b>490 MMBtu/hr x 5.9 E-06 lb/MMBtu = 0.0029 lb/hr</b>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):		
<b>Max lb/hr based on coal firing. Total emissions all three boilers limited to 0.0052 TPY.</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>5.9 E-06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0029</b> lb/hour	<b>0.0043</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack testing using EPA Method 104.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on coal firing.</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>3.5 E-07 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0002</b> lb/hour	<b>0.0003</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack testing using EPA Method 104</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on No.2 fuel oil firing.</b>		

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

**Boiler B**  
Beryllium Compounds

**A.**

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>4.5 E-07 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0002</b> lb/hour	<b>0.0006</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack testing using EPA Method 104.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on TDF firing.</b>		

**B.**

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**I. VISIBLE EMISSIONS INFORMATION  
(Regulated Emissions Units Only)**

**Visible Emissions Limitations:** Visible Emissions Limitation 1 of 1

1.	Visible Emissions Subtype: <b>VE20</b>
2.	Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3.	Requested Allowable Opacity Normal Conditions: <b>20</b> %      Exceptional Conditions: <b>27</b> % Maximum Period of Excess Opacity Allowed: <b>6</b> min/hour
4.	Method of Compliance: <b>EPA Method 9</b>
5.	Visible Emissions Comment (limit to 200 characters):

**Visible Emissions Limitations:** Visible Emissions Limitation \_\_\_\_\_ of \_\_\_\_\_

1.	Visible Emissions Subtype:
2.	Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3.	Requested Allowable Opacity Normal Conditions: _____ %      Exceptional Conditions: _____ % Maximum Period of Excess Opacity Allowed: _____ min/hour
4.	Method of Compliance:
5.	Visible Emissions Comment (limit to 200 characters):

**J. CONTINUOUS MONITOR INFORMATION  
(Regulated Emissions Units Only)**

**Continuous Monitoring System** Continuous Monitor 1 of 5

1. Parameter Code: <b>VE</b>	2. Pollutant(s):
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: <b>Durag</b> Model Number: <b>D-R281AV</b> Serial Number: <b>31015</b>	
5. Installation Date: <b>01 Oct 1995</b>	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): <b>40 CFR 60, Subpart Da</b>	

**Continuous Monitoring System** Continuous Monitor 2 of 5

1. Parameter Code: <b>NOx</b>	2. Pollutant(s):
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: <b>Thermo Environmental Instruments</b> Model Number: <b>42D</b> Serial Number: <b>42D-51082-292</b>	
5. Installation Date: <b>01 Oct 1995</b>	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): <b>40 CFR 60, Subpart Da</b>	

**J. CONTINUOUS MONITOR INFORMATION  
(Regulated Emissions Units Only)**

**Continuous Monitoring System** Continuous Monitor 3 of 5

1. Parameter Code: <b>SO2</b>	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ <input checked="" type="checkbox"/> ] Other	
4. Monitor Information: Monitor Manufacturer: <b>Thermo Environmental Instruments</b> Model Number: <b>43B</b> Serial Number: <b>43B-49519-292</b>	
5. Installation Date: <b>01 Oct 1995</b>	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): <b>40 CFR 60, Subpart Da</b>	

**Continuous Monitoring System** Continuous Monitor 4 of 5

1. Parameter Code: <b>CO</b>	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ <input checked="" type="checkbox"/> ] Other	
4. Monitor Information: Monitor Manufacturer: <b>Thermo Environmental Instruments</b> Model Number: <b>48</b> Serial Number: <b>48-45334-273</b>	
5. Installation Date: <b>01 Oct 1995</b>	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	

**J. CONTINUOUS MONITOR INFORMATION  
(Regulated Emissions Units Only)**

**Continuous Monitoring System** Continuous Monitor  5  of  5

1. Parameter Code: <b>O2</b>	2. Pollutant(s):
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: <b>Yokogawa</b> Model Number: <b>ZA8C</b> Serial Number: <b>JJ113PA133</b>	
5. Installation Date: <b>01 Oct 1995</b>	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): <b>40 CFR 60, Subpart Da</b>	

**Continuous Monitoring System** Continuous Monitor \_\_\_\_\_ of \_\_\_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: <input type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	

**K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT  
TRACKING INFORMATION  
(Regulated and Unregulated Emissions Units)**

**PSD Increment Consumption Determination**

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

- ] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
- ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and the emissions unit consumes increment.
- ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and the emissions unit consumes increment.
- ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

5



2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

- The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and the source consumes increment.
- The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and the source consumes increment.
- For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.
- None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3.	Increment Consuming/Expanding Code:			
	PM	<input checked="" type="checkbox"/> C	<input type="checkbox"/> E	<input type="checkbox"/> Unknown
	SO <sub>2</sub>	<input checked="" type="checkbox"/> C	<input type="checkbox"/> E	<input type="checkbox"/> Unknown
	NO <sub>2</sub>	<input checked="" type="checkbox"/> C	<input type="checkbox"/> E	<input type="checkbox"/> Unknown
4.	Baseline Emissions:			
	PM	0 lb/hour		0 tons/year
	SO <sub>2</sub>	0 lb/hour		0 tons/year
	NO <sub>2</sub>			0 tons/year
5.	PSD Comment (limit to 200 characters):			

**L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements for All Applications**

1.	Process Flow Diagram	<input checked="" type="checkbox"/> Attached, Document ID: <u>PART B</u>	<input type="checkbox"/> Waiver Requested
		<input type="checkbox"/> Not Applicable	
2.	Fuel Analysis or Specification	<input checked="" type="checkbox"/> Attached, Document ID: <u>PART B</u>	<input type="checkbox"/> Waiver Requested
		<input type="checkbox"/> Not Applicable	
3.	Detailed Description of Control Equipment	<input checked="" type="checkbox"/> Attached, Document ID: <u>PART B</u>	<input type="checkbox"/> Waiver Requested
		<input type="checkbox"/> Not Applicable	
4.	Description of Stack Sampling Facilities	<input type="checkbox"/> Attached, Document ID: _____	<input type="checkbox"/> Waiver Requested
		<input checked="" type="checkbox"/> Not Applicable	
5.	Compliance Test Report	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
		<input type="checkbox"/> Previously Submitted, Date: _____	
6.	Procedures for Startup and Shutdown	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
7.	Operation and Maintenance Plan	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
8.	Supplemental Information for Construction Permit Application	<input checked="" type="checkbox"/> Attached, Document ID: <u>PART B</u>	<input type="checkbox"/> Not Applicable
9.	Other Information Required by Rule or Statute	<input checked="" type="checkbox"/> Attached, Document ID: <u>PART B</u>	<input type="checkbox"/> Not Applicable

**Additional Supplemental Requirements for Category I Applications Only**

10. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
11. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Acid Rain Permit Application (Hard Copy Required) <input type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

**A. TYPE OF EMISSIONS UNIT  
(Regulated and Unregulated Emissions Units)****Type of Emissions Unit Addressed in This Section**

1. Regulated or Unregulated Emissions Unit? Check one:

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one:

This Emissions Unit information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

**B. GENERAL EMISSIONS UNIT INFORMATION  
(Regulated and Unregulated Emissions Units)**

**Emissions Unit Description and Status**

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): <b>Boiler C fired by Biomass/No.2 oil/coal/TDF</b>		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [ ] Unknown <b>003</b>		
3. Emissions Unit Status Code: <b>A</b>	4. Acid Rain Unit? [ ] Yes [ <b>x</b> ] No	5. Emissions Unit Major Group SIC Code: <b>49</b>
6. Emissions Unit Comment (limit to 500 characters): <b>74.9 MW gross generating capacity for entire facility.</b>		

**Emissions Unit Control Equipment Information**

**A.**

1. Description (limit to 200 characters):  <b>ESP - Electrostatic Precipitator</b>
2. Control Device or Method Code: <b>10</b>

**B.**

1. Description (limit to 200 characters):  <b>Selective Non-Catalytic Reduction for NOx</b>
2. Control Device or Method Code: <b>107</b>

**C.**

1. Description (limit to 200 characters):  <b>Activated Carbon injection system.</b>
2. Control Device or Method Code: <b>48</b>

**C. EMISSIONS UNIT DETAIL INFORMATION  
(Regulated Emissions Units Only)**

**Emissions Unit Details**

1. Initial Startup Date:		
2. Long-term Reserve Shutdown Date:		
3. Package Unit: Manufacturer:		Model Number:
4. Generator Nameplate Rating:		MW
5. Incinerator Information:		
	Dwell Temperature:	°F
	Dwell Time:	seconds
	Incinerator Afterburner Temperature:	°F

**Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate:	<b>715</b>	mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Operating Capacity Comment (limit to 200 characters):		
<b>Maximum heat input rates: Biomass - 715 MMBtu/hr; No.2 Fuel Oil - 490 MMBtu/hr; Coal - 490 MMBtu/hr; Tire-derived fuel - 340 MMBtu/hr</b>		

**Emissions Unit Operating Schedule**

1. Requested Maximum Operating Schedule:		
	<b>24</b> hours/day	<b>7</b> days/week
	<b>52</b> weeks/yr	<b>8,760</b> hours/yr

**D. EMISSIONS UNIT REGULATIONS  
(Regulated Emissions Units Only)**

**Rule Applicability Analysis** (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)

[Empty rectangular box for Rule Applicability Analysis]



**List of Applicable Regulations** (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

40 CFR 60, Subpart Da  
40 CFR 60, Subpart Ea and Cd (record keeping only)  
62-296.570 Reasonably Avail. Control Technology

**E. EMISSION POINT (STACK/VENT) INFORMATION**  
**(Regulated Emissions Units Only)**

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: BLR C	
2. Emission Point Type Code: <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:	
5. Discharge Type Code: <input type="checkbox"/> D <input type="checkbox"/> F <input type="checkbox"/> H <input type="checkbox"/> P <input type="checkbox"/> R <input checked="" type="checkbox"/> V <input type="checkbox"/> W	
6. Stack Height:	225 feet
7. Exit Diameter:	10 feet
8. Exit Temperature:	330 °F

9. Actual Volumetric Flow Rate:	270,000 acfm
10. Percent Water Vapor:	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates:	
Zone:	East (km):                      North (km):
14. Emission Point Comment (limit to 200 characters):	
	<b>Stack parameters based on biomass firing.</b>

**F. SEGMENT (PROCESS/FUEL) INFORMATION**  
**(Regulated and Unregulated Emissions Units)**

**Segment Description and Rate:** Segment 1 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):  <b>Electric Utility boiler - bagasse</b>	
2. Source Classification Code (SCC):  <b>1-01-011-01</b>	
3. SCC Units: <b>Tons Burned</b>	
4. Maximum Hourly Rate:  <b>84.118</b>	5. Maximum Annual Rate:  <b>736,874</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:  <b>0.05</b>	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):  <b>Maximum percent Sulfur: 0.05. Maximum Percent Ash: 0.42. Million Btu per SCC Unit: 8.5. Total biomass all three boilers = 1,352,941 TPY.</b>	

**Segment Description and Rate:** Segment 2 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): <b>Electric Utility Boiler - Wood Fired Boiler</b>	
2. Source Classification Code (SCC): <b>1-01-009-03</b>	
3. SCC Units: <b>Tons Burned</b>	
4. Maximum Hourly Rate: <b>65</b>	5. Maximum Annual Rate: <b>569,400</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: <b>0.11</b>	8. Maximum Percent Ash: <b>3.2</b>
9. Million Btu per SCC Unit: <b>11</b>	
10. Segment Comment (limit to 200 characters): <b>Maximum Percent Sulfur: 0.11. Total biomass all three boilers = 1,352,941 TPY.</b>	

**F. SEGMENT (PROCESS/FUEL) INFORMATION**  
**(Regulated and Unregulated Emissions Units)**

**Segment Description and Rate:** Segment 3 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):  <b>Electric Utility Boiler - Distillate Oil - Grades 1 and 2 oil</b>	
2. Source Classification Code (SCC):  <b>1-01-005-01</b>	
3. SCC Units:  <b>Thousand Gallons Burned</b>	
4. Maximum Hourly Rate:  <b>3.551</b>	5. Maximum Annual Rate:  <b>7,745</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:  <b>0.05</b>	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:  <b>138</b>	
10. Segment Comment (limit to 200 characters):  <b>Maximum Annual Rate: 7,745,000. This represents 24.9% oil firing on a heat input basis. Total No.2 Fuel Oil all three boilers = 19,533,086 gal/yr.</b>	

**Segment Description and Rate:** Segment 4 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): <b>Electric Utility boiler - Butiminous Coal - Spreader Stoker</b>	
2. Source Classification Code (SCC): <b>1-01-002-04</b>	
3. SCC Units: <b>Tons Burned</b>	
4. Maximum Hourly Rate: <b>20.417</b>	5. Maximum Annual Rate: <b>61,172</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: <b>0.7</b>	8. Maximum Percent Ash: <b>3.7</b>
9. Million Btu per SCC Unit: <b>24</b>	
10. Segment Comment (limit to 200 characters): <b>Total coal all three boilers = 69,720 TPY (15.1% coal burning on a heat input basis). The combined heat input for coal and oil &lt;25% on a calendar quarter basis.</b>	

**F. SEGMENT (PROCESS/FUEL) INFORMATION**  
**(Regulated and Unregulated Emissions Units)**

**Segment Description and Rate:** Segment 5 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):  <b>Electric Utility Boiler - Solid Waste - Tire Derived Fuel</b>	
2. Source Classification Code (SCC):  <b>1-01-012-01</b>	
3. SCC Units: <b>Tons Burned</b>	
4. Maximum Hourly Rate:  <b>11</b>	5. Maximum Annual Rate:  <b>81,246</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:  <b>1.2</b>	8. Maximum Percent Ash:  <b>5</b>
9. Million Btu per SCC Unit:  <b>31</b>	
10. Segment Comment (limit to 200 characters):  <b>Maximum hourly rate based on 340 MMBtu/hr TDF. Total TDF all three boilers = 81,246 TPY. This represents 9.0% TDF burning on a weight basis.</b>	



**Segment Description and Rate:** Segment   of

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):	
2. Source Classification Code (SCC):	
3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):	

**G. EMISSIONS UNIT POLLUTANTS  
(Regulated and Unregulated Emissions Units)**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	010		EL
PM10	010		EL
SO2			EL
NOx	107		EL
CO			EL
VOC			EL
PB	010		EL
SAM			EL
FL			EL
H114	048		EL
H021			EL
HAPS			NS
H106			NS
H107			NS

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

**Pollutant Detail Information:**

1. Pollutant Emitted: <b>PM</b>	
2. Total Percent Efficiency of Control:	<b>99 %</b>
3. Potential Emissions:	<b>21.5 lb/hour                      94.17 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions:  <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr	
6. Emission Factor: <b>0.03 lb/MMBtu</b>  Reference: <b>40 CFR 60 Subpart Da</b>	
7. Emissions Method Code:  <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters):  <b>0.03 lb/MMBtu x 715 MMBtu/hr = 21.5 lb/hr</b>	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>172.5 TPY total for all boilers</b>	

A.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.03 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>21.5 lb/hour</b>	<b>94.17 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test using EPA Method 5</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Basis for Allowable Emissions Code: NSPS. Maximum lb/hr based on biomass firing.</b>		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

**Pollutant Detail Information:**

1. Pollutant Emitted: <b>PM10</b>	
2. Total Percent Efficiency of Control:	<b>99 %</b>
3. Potential Emissions:	<b>21.5 lb/hour                      94.17 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions:  <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr	
6. Emission Factor: <b>0.03 lb/MMBtu</b>  Reference: <b>40 CFR 60 Subpart Da</b>	
7. Emissions Method Code:  <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters):  <b>0.03 lb/MMBtu x 715 MMBtu/hr = 21.5 lb/hr</b>	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>172.5 TPY total for all boilers</b>	

**A.**

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.03 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>21.5 lb/hour</b>	<b>94.17 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack testing using EPA Method 5.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Basis for Allowable Emissions Code: NSPS. Maximum lb/hr based on biomass firing.</b>		

**B.**

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units Only - Emissions Limited Pollutants Only)****Pollutant Detail Information:**

1. Pollutant Emitted: <b>SO2</b>		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	<b>588 lb/hour</b>	<b>1,067.5 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:		
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3 _____ to _____ tons/yr
6. Emission Factor:	<b>1.2 lb/MMBtu</b>	
Reference: 40 CFR 60 Subpart Da		
7. Emissions Method Code:		
<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5
8. Calculation of Emissions (limit to 600 characters):		
<b>1.2 lb/MMBtu x 490 MMBtu/hr = 588.0 lb/hr</b>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):		
<b>1,154.3 TPY total for all three boilers.</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>0.1 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>71.5 lb/hour</b>	<b>100.2 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Continuous SO2 monitor</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Requested Allowable Emissions: 0.1 lb/MMBtu 24-hr avg; Annual- 0.02 lb/MMBtu for bagasse, 0.05 lb/MMBtu for wood. Based on biomass firing.</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>1.2 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>408 lb/hour</b>	<b>1,008 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Continuous SO2 monitor.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Requested Allowable Emissions: 1.2 lb/MMBtu, 24-hr avg.; 0.8 lb/MMBtu, annual avg. Based on tire-derived fuel firing. Annual TPY: 81,246 TPY TDF x 15,500 Btu/lb x 0.8 lb/MMBtu = 1,007.6 TPY</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>1.2 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>588 lb/hour</b>	<b>880.8 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Limit coal 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>Basis for Allowable Emissions Code: NSPS. Based on coal firing.</b>		

**B.**

1. Basis for Allowable Emissions Code: <b>RULE</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.05 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>22.5 lb/hour</b>	<b>36.7 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 and BACT.</b>		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

**Pollutant Detail Information:**

1. Pollutant Emitted: <b>NOx</b>	
2. Total Percent Efficiency of Control:	<b>40 %</b>
3. Potential Emissions:	<b>107.3 lb/hour                      470 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions:  <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr	
6. Emission Factor: <b>0.15 lb/MMBtu</b>  Reference: <b>NOx control system</b>	
7. Emissions Method Code:  <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters):  <b>0.15 lb/MMBtu x 715 MMBtu/hr = 107.3 lb/hr</b>	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>862.5 TPY total for all boilers</b>	

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

A.

1. Basis for Allowable Emissions Code: <b>ESCPSD</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.15 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>107.3 lb/hour</b>	<b>470 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test using EPA Method 7 or 7E</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on biomass firing</b>		

B.

1. Basis for Allowable Emissions Code: <b>ESCPSD</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.15 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>67.5 lb/hour</b>	<b>110.1 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</b>		

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

A.

1. Basis for Allowable Emissions Code: <b>ESCPSD</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.17 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>83.3 lb/hour</b>	<b>124.8 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Limit coal 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 coal firing</b>		

B.

1. Basis for Allowable Emissions Code: <b>ESCPSD</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.15 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>51 lb/hour</b>	<b>188.9 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test using EPA Method 7 or 7E.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on tire-derived fuel firing. Limit TDF firing to 40.2% on a heat input basis.</b>		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

**Pollutant Detail Information:**

1. Pollutant Emitted: <b>CO</b>		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	<b>250.3</b> lb/hour	<b>1,096</b> tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:		
[ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr		
6. Emission Factor:		<b>0.35</b> lb/MMBtu
Reference: <b>Boiler Design</b>		
7. Emissions Method Code:		
[ ] 0 [ ] 1 <input checked="" type="checkbox"/> 2 [ ] 3 [ ] 4 [ ] 5		
8. Calculation of Emissions (limit to 600 characters):		
<b>0.35 lb/MMBtu x 715 MMBtu/hr = 250.3 lb/hr. Limit based on 24-hour average.</b>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):		
<b>2,012.5 TPY total for all boilers</b>		

A.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.2 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>98 lb/hour</b>	<b>146.8 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 coal firing. Limit coal burning to 24.9% each boiler. 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>63 lb/hour</b>	<b>440.8 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 tire-derived fuel firing. Limit based on 24-hour average. TDF firing limited to 40.2% for each boiler, heat input basis.</b>		

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>0.2 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>90 lb/hour</b>	<b>146.8 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>		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units Only - Emissions Limited Pollutants Only)****Pollutant Detail Information:**

1. Pollutant Emitted: <b>VOC</b>	
2. Total Percent Efficiency of Control:	%
3. Potential Emissions:	<b>42.9 lb/hour</b> <b>187.9 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions:  <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr	
6. Emission Factor:	<b>0.06 lb/MMBtu</b>
Reference: <b>Boiler Design</b>	
7. Emissions Method Code:  <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters):  <b>0.06 lb/MMBtu x 715 MMBtu/hr = 42.9 lb/hr</b>	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>Based on biomass firing. Total for all three boilers = 345.0 TPY</b>	



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

Volatile Organic Compounds

A.

1. Basis for Allowable Emissions Code: <b>ESCNAA</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>42.9 lb/hour</b>	<b>187.9 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test using EPA Method 25 or 25A</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on biomass firing.</b>		

B.

1. Basis for Allowable Emissions Code: <b>ESCNAA</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.03 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>13.5 lb/hour</b>	<b>22 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>See Comment</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 No.2 fuel oil burning to 24.9% entire facility and for any single boiler.</b>		

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

Volatile Organic Compounds

A.

1. Basis for Allowable Emissions Code: <b>ESCNAA</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.03 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>14.7 lb/hour</b>	<b>22 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Limit coal 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 coal firing</b>		

B.

1. Basis for Allowable Emissions Code: <b>ESCNAA</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>10.8 lb/hour</b>	<b>75.6 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>EPA Method 25 or 25A annually</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on tire-derived fuel firing. TDF firing limited to 40.2% for any single boiler (heat input basis).</b>		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units Only - Emissions Limited Pollutants Only)****Pollutant Detail Information:**

1. Pollutant Emitted: <b>PB</b>	
2. Total Percent Efficiency of Control:	<b>99 %</b>
3. Potential Emissions:	<b>0.114 lb/hour                      0.454 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions: [ ] 1    [ ] 2    [ ] 3    _____ to _____ tons/yr	
6. Emission Factor:	<b>1.6 E-04 lb/MMBtu</b>
Reference: <b>See Part B</b>	
7. Emissions Method Code: [ ] 0    [ ] 1    [ ] 2    [ ] 3    [ ] 4 <input checked="" type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters): <b>1.6 E-04 lb/MMBtu x 715 MMBtu/hr = 0.114 lb/hr.</b>	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): <b>Maximum emissions due to coal firing. Facility emissions are 0.454 TPY total all boilers.</b>	

A.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>1.6 E-04 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.114 lb/hour</b>	<b>0.067 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Stack test using EPA Method 12 once every 5 years.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Biomass Firing</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>8.9 E-07 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0004 lb/hour</b>	<b>0.0007 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Stack test using EPA Method 12 once every 5 years.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>No.2 fuel oil firing</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>6.4 E-05 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.031 lb/hour</b>	<b>0.047 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Stack test using EPA Method 12 once every 5 years.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Coal Firing</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>4.2 E-05 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0143 lb/hour</b>	<b>0.053 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Stack test using EPA Method 12 once every 5 years.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>TDF firing</b>		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units Only - Emissions Limited Pollutants Only)****Pollutant Detail Information:**

1. Pollutant Emitted: <b>SAM</b>		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	<b>17.6 lb/hour</b>	<b>27.8 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:		
[ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr		
6. Emission Factor:		<b>0.036 lb/MMBtu</b>
Reference: See Part B		
7. Emissions Method Code:		
[ ] 0 [ ] 1 [ ] 2 <input checked="" type="checkbox"/> 3 [ ] 4 [ ] 5		
8. Calculation of Emissions (limit to 600 characters):		
<b>0.036 lb/MMBtu x 490 MMBtu/hr = 17.6 lb/hr</b>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):		
<b>Based on coal firing, 34.6 TPY total for all boilers.</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>0.003 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>22 lb/hour</b>	<b>1.9 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>EPA Method 8 once every 5 years.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on biomass firing</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>0.0015 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.74 lb/hour</b>	<b>1.1 tons/year</b>
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on No.2 fuel oil firing.</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>0.01 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>17.6 lb/hour</b>	<b>26.4 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>EPA Method 8 once every 5 years.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on coal firing</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>0.01 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>3.4 lb/hour</b>	<b>8.7 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>EPA Method 8 once every 5 years.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on tire-derived fuel firing.</b>		



**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units Only - Emissions Limited Pollutants Only)****Pollutant Detail Information:**

1. Pollutant Emitted: <b>FL</b>		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	<b>11.8 lb/hour</b>	<b>17.6 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:		
[ ] 1    [ ] 2    [ ] 3    _____ to _____ tons/yr		
6. Emission Factor:		<b>0.024 lb/MMBtu</b>
Reference: See Part B		
7. Emissions Method Code:		
[ ] 0    [ ] 1 <input checked="" type="checkbox"/> 2    [ ] 3    [ ] 4    [ ] 5		
8. Calculation of Emissions (limit to 600 characters):		
<b>0.024 lb/MMBtu x 490 MMBtu/hr = 11.8 lb/hr</b>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):		
<b>Based on coal firing. Total emissions from all three boilers limited to 21.23 TPY.</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>6.3 E-06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0031</b> lb/hour	<b>0.0046</b> tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on No.2 fuel oil firing</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>0.024 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>11.8</b> lb/hour	<b>17.6</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>EPA Method 13A or 13B once every 5 years.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on coal firing</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>6.5 E-04 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.22</b> lb/hour	<b>0.82</b> tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on TDF firing.</b>		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units Only - Emissions Limited Pollutants Only)****Pollutant Detail Information:**

1. Pollutant Emitted: <b>H114</b>		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	<b>0.0041</b> lb/hour	<b>0.0173</b> tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:		
[ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr		
6. Emission Factor:		<b>See Part B</b>
Reference: <b>See Part B</b>		
7. Emissions Method Code:		
[ <input checked="" type="checkbox"/> ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5		
8. Calculation of Emissions (limit to 600 characters):		
<b>Annual TPY limited by permit condition.</b>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):		
<b>Total emissions all three boilers cannot exceed 0.030 TPY.</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>4 E-06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0029</b> lb/hour	<b>0.0152</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack testing using EPA Method 101A.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on wood waste firing.</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>5.43 E-06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0045</b> lb/hour	<b>0.0152</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack testing using EPA Method 101A.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on bagasse firing. Limit subject to revision based on stack testing.</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>24 E-06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0012</b> lb/hour	<b>0.0018</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack testing using EPA Method 101A.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on No.2 oil firing.</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>8.4 E-06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0041</b> lb/hour	<b>0.0062</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack testing using EPA Method 101A.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on coal firing. Limit subject to revision based on stack testing.</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>6.5 E-06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0022</b> lb/hour	<b>0.0082</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack testing using EPA Method 101A.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on TDF firing.</b>		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)****Pollutant Detail Information:**

1. Pollutant Emitted: <b>H021</b>	
2. Total Percent Efficiency of Control:	<b>99 %</b>
3. Potential Emissions:	<b>0.0029 lb/hour                      0.0043 tons/year</b>
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions:  [ ] 1      [ ] 2      [ ] 3      _____ to _____ tons/yr	
6. Emission Factor:  Reference: <b>See Part B</b>	
7. Emissions Method Code:  <input checked="" type="checkbox"/> 0      [ ] 1      [ ] 2      [ ] 3      [ ] 4      [ ] 5	
8. Calculation of Emissions (limit to 600 characters):  <b>490 MMBtu/hr x 5.9 E-06 lb/MMBtu = 0.0029 lb/hr</b>	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>Max lb/hr based on coal firing. Total emissions all three boilers limited to 0.0052 TPY.</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>5.9 E-06 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0029</b> lb/hour	<b>0.0043</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack testing using EPA Method 104.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on coal firing.</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>3.5 E-07 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0002</b> lb/hour	<b>0.0003</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack testing using EPA Method 104</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on No.2 fuel oil firing.</b>		

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

A.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>4.5 E-07 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>0.0002</b> lb/hour	<b>0.0006</b> tons/year
5. Method of Compliance (limit to 60 characters): <b>Stack testing using EPA Method 104.</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Based on TDF firing.</b>		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**I. VISIBLE EMISSIONS INFORMATION  
(Regulated Emissions Units Only)**

**Visible Emissions Limitations:** Visible Emissions Limitation 1 of 1

1.	Visible Emissions Subtype: <b>VE20</b>
2.	Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3.	Requested Allowable Opacity Normal Conditions: <b>20</b> %      Exceptional Conditions: <b>27</b> % Maximum Period of Excess Opacity Allowed: <b>6</b> min/hour
4.	Method of Compliance: <b>EPA Method 9</b>
5.	Visible Emissions Comment (limit to 200 characters):

**Visible Emissions Limitations:** Visible Emissions Limitation \_\_\_\_ of \_\_\_\_

1.	Visible Emissions Subtype:
2.	Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3.	Requested Allowable Opacity Normal Conditions: %      Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance:
5.	Visible Emissions Comment (limit to 200 characters):

**J. CONTINUOUS MONITOR INFORMATION  
(Regulated Emissions Units Only)**

**Continuous Monitoring System** Continuous Monitor 1 of 5

1. Parameter Code: <b>VE</b>	2. Pollutant(s):
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: <b>Durag</b> Model Number: <b>D-R281AV</b> Serial Number: <b>31018</b>	
5. Installation Date: <b>01 Oct 1995</b>	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): <b>40 CFR 60, Subpart Da</b>	

**Continuous Monitoring System** Continuous Monitor 2 of 5

1. Parameter Code: <b>NOx</b>	2. Pollutant(s):
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: <b>Thermo Environmental Instruments</b> Model Number: <b>42D</b> Serial Number: <b>42D-51031-292</b>	
5. Installation Date: <b>01 Oct 1995</b>	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): <b>40 CFR 60, Subpart Da</b>	

**J. CONTINUOUS MONITOR INFORMATION  
(Regulated Emissions Units Only)**

**Continuous Monitoring System** Continuous Monitor 3 of 5

1. Parameter Code: <b>SO2</b>	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ <b>X</b> ] Other	
4. Monitor Information: Monitor Manufacturer: <b>Thermo Environmental Instruments</b> Model Number: <b>43B</b> Serial Number: <b>43B-48524-292</b>	
5. Installation Date: <b>01 Oct 1995</b>	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): <b>40 CFR 60, Subpart Da</b>	

**Continuous Monitoring System** Continuous Monitor 4 of 5

1. Parameter Code: <b>CO</b>	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ <b>X</b> ] Other	
4. Monitor Information: Monitor Manufacturer: <b>Thermo Environmental Instruments</b> Model Number: <b>48</b> Serial Number: <b>48-52605-292</b>	
5. Installation Date: <b>01 Oct 1995</b>	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	

**J. CONTINUOUS MONITOR INFORMATION  
(Regulated Emissions Units Only)**

**Continuous Monitoring System** Continuous Monitor 5 of 5

1. Parameter Code: <b>O2</b>	2. Pollutant(s):
3. CMS Requirement: [ <input checked="" type="checkbox"/> ] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: <b>Yokogawa</b> Model Number: <b>ZA8C</b> Serial Number: <b>JJ113PA135</b>	
5. Installation Date: <b>01 Oct 1995</b>	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): <b>40 CFR 60, Subpart Da</b>	

**Continuous Monitoring System** Continuous Monitor \_\_\_\_\_ of \_\_\_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	

**K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT  
TRACKING INFORMATION  
(Regulated and Unregulated Emissions Units)**

**PSD Increment Consumption Determination**

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

- ] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
- [ ] ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and the emissions unit consumes increment.
- [ ] ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and the emissions unit consumes increment.
- [ ] ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- [ ] ] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

## 2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

- ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
- ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and the source consumes increment.
- ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and the source consumes increment.
- ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.
- ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3.	Increment Consuming/Expanding Code:		
PM	<input checked="" type="checkbox"/> ] C	<input type="checkbox"/> ] E	<input type="checkbox"/> ] Unknown
SO <sub>2</sub>	<input checked="" type="checkbox"/> ] C	<input type="checkbox"/> ] E	<input type="checkbox"/> ] Unknown
NO <sub>2</sub>	<input checked="" type="checkbox"/> ] C	<input type="checkbox"/> ] E	<input type="checkbox"/> ] Unknown
4.	Baseline Emissions:		
PM	0 lb/hour	0	tons/year
SO <sub>2</sub>	0 lb/hour	0	tons/year
NO <sub>2</sub>		0	tons/year
5.	PSD Comment (limit to 200 characters):		



**L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements for All Applications**

1.	Process Flow Diagram	<input checked="" type="checkbox"/> Attached, Document ID: <u>PART B</u>	<input type="checkbox"/> Not Applicable	<input type="checkbox"/> Waiver Requested
2.	Fuel Analysis or Specification	<input checked="" type="checkbox"/> Attached, Document ID: <u>PART B</u>	<input type="checkbox"/> Not Applicable	<input type="checkbox"/> Waiver Requested
3.	Detailed Description of Control Equipment	<input checked="" type="checkbox"/> Attached, Document ID: <u>PART B</u>	<input type="checkbox"/> Not Applicable	<input type="checkbox"/> Waiver Requested
4.	Description of Stack Sampling Facilities	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable	<input type="checkbox"/> Waiver Requested
5.	Compliance Test Report	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Previously Submitted, Date: _____	<input checked="" type="checkbox"/> Not Applicable
6.	Procedures for Startup and Shutdown	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable	
7.	Operation and Maintenance Plan	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable	
8.	Supplemental Information for Construction Permit Application	<input checked="" type="checkbox"/> Attached, Document ID: <u>PART B</u>	<input type="checkbox"/> Not Applicable	
9.	Other Information Required by Rule or Statute	<input checked="" type="checkbox"/> Attached, Document ID: <u>PART B</u>	<input type="checkbox"/> Not Applicable	

**Additional Supplemental Requirements for Category I Applications Only**

10. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
11. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Acid Rain Permit Application (Hard Copy Required) <input type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**PART B**  
**SUPPLEMENTAL INFORMATION FOR PERMIT APPLICATION**  
**OKEELANTA POWER LIMITED PARTNERSHIP**

## 1.0 INTRODUCTION

Okeelanta Power Limited Partnership (OkPLP) was issued a prevention of significant deterioration (PSD) permit in 1993 for construction of a 74.9 megawatt electric (MWe) cogeneration facility (Permit No. AC50-219413; PSD-FL-196). The cogeneration facility is located at the site of the existing Okeelanta Corporation sugar mill, south of South Bay, Florida. The facility was designed to combust primarily biomass (bagasse and wood waste materials) in three steam boilers to generate steam and electricity. The facility was also designed to supply the adjacent sugar mill with process steam during the sugar cane grinding season, approximately November through March.

Construction was completed on the facility in 1995, and initial operations began in late 1995. Due to technical and operational difficulties and periods of facility shutdown, the facility was operated at less than design capacity during 1996. Almost all fuel burned in the facility boilers has been wood waste and No. 2 fuel oil. Only a small amount of bagasse has been combusted.

To date, the cogeneration facility has been unable to successfully connect to the sugar mill. Once the facility successfully connects to the sugar mill, the existing sugar mill boilers will be shutdown and will only operate when one or more of the cogeneration units are shutdown. The existing boilers will be permanently shutdown and rendered incapable of operation no later than January 1, 1999.

The cogeneration facility will provide enough steam energy to generate electricity and to meet the needs of the Okeelanta sugar mill. Excess electricity will be sold to Florida Power & Light Company (FPL). Further, the facility will reduce overall air emissions and water consumption compared to the existing sugar mill facility while generating approximately 18 times more electric energy than the existing facility.

The state construction permit (AC50-219413) and federal PSD permit (PSD-FL-196) were issued to Okeelanta Power on September 27, 1993. In 1996, OkPLP submitted an application to burn tire-derived fuel (TDF) as a supplemental fuel to biomass. This application is currently being held in abeyance pending the results of a TDF trial burn at the facility.

Initial compliance testing was performed at OkPLP during May and December of 1996. According to the air construction permit, Specific Condition No. 22, compliance tests are to be conducted every 6 months for a period of 2 years in order to confirm the emission limits for certain pollutants in the permit. Based on the results of these tests, emission limits can be revised as long as a fuel management plan is submitted to demonstrate that annual emission limits (in tons per year) for the facility will not be exceeded.

Test data gathered from the facility to date, which include the compliance test data as well as data from the continuous emission monitoring system (CEMS), indicates that the emission limits for sulfur dioxide (SO<sub>2</sub>), lead (Pb), and mercury (Hg) need to be revised. In addition, it is requested that the averaging time associated with the emission limit for carbon monoxide (CO) be increased.

The requested changes in the permit limits will not increase total permitted annual emissions to the atmosphere of any PSD regulated pollutants, except for a small increase in the annual emissions of Pb. The changes do not require PSD or nonattainment new source review.

This report presents a description of the proposed emission limit changes, and the rational and supporting information for such changes. A complete description of the requested changes, including air emission rates, is presented in Section 2.0. The air quality review requirements for the project and new source review applicability are discussed in Section 3.0. An updated air modeling analysis for air toxics is presented in Section 4.0. Supportive information is contained in the appendices.

## 2.0 PROJECT DESCRIPTION

### 2.1 GENERAL

OkPLP was issued a state construction permit (AC50-219413) and federal PSD permit (PSD-FL-196) on September 27, 1993, for the construction of a 74.9 MWe (gross) capacity biomass/coal-fired cogeneration facility. Each boiler is capable of producing up to an average of 455,418 lbs/hr steam. During the sugar processing season, the cogeneration facility is to provide steam to the existing Okeelanta sugar mill by burning primarily bagasse, which is the residual cellulose fiber resulting from the sugar cane grinding process, while also generating electricity. During the off-season, the cogeneration facility will burn primarily wood waste to generate electricity.

The construction permit limits the maximum heat input to each of the three boilers to 715 million British thermal units per hour (MMBtu/hr) when firing biomass, and 490 MMBtu/hr when firing fossil fuels (No. 2 fuel oil or low sulfur coal). Maximum annual heat input to the entire facility is limited to  $11.5 \times 10^{12}$  Btu/yr, and maximum coal burning is limited to 73,714 tons per year (TPY), which is approximately 16 percent of the total annual heat input.

In addition to the currently permitted fuels, it has been proposed by OkPLP (in June 1996) to permit TDF as a supplemental fuel to be used primarily in the off-season when bagasse is not available. TDF may also be burned during the crop season in order to extend the bagasse supply. TDF will be fired in combination with biomass. The proposed maximum TDF input was 25 percent on a weight basis (22,000 lb/hr or 11.0 TPH, maximum) on a short-term basis, and not exceeding 9.1 percent (weight basis) on a facility-wide annual average basis (81,600 TPY total TDF).

The changes to the facility operating and emission limits now being proposed by OkPLP consist of the following:

1. Adjustment of the SO<sub>2</sub>, Pb, and Hg emission limits for wood waste fuel,
2. Adjustment of the Hg emission limit for bagasse burning,
3. Adjustment in the expected mix of bagasse and wood waste fuels,
4. Adjustment of the averaging time associated with the facility CO emission limits, and
5. Slight adjustment of annual coal and TDF firing rates to not exceed facility emission caps.

The three new boilers are subject to the federal new source performance standards (NSPS) for electric utility boilers (40 CFR 60, Subpart Da). The boilers are also subject to a reporting and recordkeeping requirement under the NSPS for municipal waste combustors (MWCs) (40 CFR 60, Subparts Ea and Cb). The boilers are subject to these requirements because they will potentially burn woodwaste and TDF originating from residential, commercial and/or institutional sources. Such fuels are defined as municipal solid waste (MSW) under the NSPS. However, because OkPLP has accepted a limit restricting the amount of MSW burned in each boiler to less than 30 percent (by weight) on a calendar quarter basis (permit amendment issued February 20, 1996), the boilers will be exempt from the Subpart Ea and Cb standards, and only subject to recordkeeping and reporting requirements.

Air pollution control equipment serving each boiler consists of an electrostatic precipitator (ESP) to control particulate matter (PM) and heavy metal emissions, a selective non-catalytic reduction (SNCR) system for the control of NO<sub>x</sub> emissions, and a carbon injection system for mercury control.

A regional map showing the location of the site is presented in Figure 2-1. A location map showing the existing sugar mill, cogeneration site, and plant property boundaries is presented in Figure 2-2.

## **2.2 COGENERATION FACILITY DESIGN INFORMATION**

Updated design and operating information concerning the cogeneration facility was presented in the application for TDF submitted in May, 1996. Most of this information has not changed; where there are changes, the information is presented in the following sections. A simplified process flow diagram of the cogeneration facility is presented in Figure 2-3.

### **2.2.1 FUELS**

OkPLP is planning on burning 100 percent biomass fuels. It is planned that the bagasse from the sugar grinding operation will provide approximately two-thirds of the annual fuel requirements of the facility. The remaining fuel requirements will be provided by wood waste materials, which could include clean construction and demolition wood debris, yard trimmings, land clearing debris, and other clean cellulose and vegetative matter. However, because wood waste materials are not commodity fuels and the supply of wood waste may fluctuate, it is necessary to have the

ability to burn limited amounts of fossil fuel and TDF in the event that the supply of biomass fuel is not adequate. Therefore, each combustion unit has the capability to burn biomass, biomass/TDF, very low sulfur fuel oil, and coal.

Fuel specifications for each fuel that may be utilized by the cogeneration facility are presented in Table 2-1. Based on these fuel specifications, maximum hourly firing rates are shown in Table 2-2 for each fuel when fired alone. The maximum heat input to each boiler due to biomass fuels will be 715 MMBtu/hr. Due to limitations of the fuel oil firing system, maximum heat input of No. 2 fuel oil will be limited to 490 MMBtu/hr. Maximum heat input due to coal will be 490 MMBtu/hr. Biomass and fossil fuels may also be burned in combination, not to exceed a total heat input of 715 MMBtu/hr per boiler. These maximum heat input rates are the same as the current permitted rates.

TDF will always be burned in combination with biomass. Maximum TDF input for each boiler will not exceed 25 percent on a weight basis (approximately 48 percent on a heat input basis), up to a maximum of 22,000 lb/hr (11.0 TPH and 340 MMBtu/hr). Biomass and TDF, burned in combination, will not exceed a total heat input of 715 MMBtu/hr.

On an annual basis, the total heat input to all three boilers will not exceed  $11.50 \times 10^{12}$  Btu/yr. Burning of No. 2 fuel oil will be limited to a total of 24.9 percent of the total annual heat input. Coal burning will be limited to 15.1 percent annually on a heat input basis, or to 69,720 TPY. Total fossil fuel burning will also be limited to 24.9 percent on a calendar quarter basis. TDF burning will be limited to 21.9 percent annually on a facility-wide basis (heat input basis), or to 81,246 TPY.

Four cases are shown in Table 2-2 to document the anticipated scenario of firing 100 percent biomass fuel and the potential cases of firing the maximum amount of fuel oil, coal, or TDF, with the remaining heat input due to biomass. When only biomass is fired, the annual heat input requirement is  $11.5 \times 10^{12}$  Btu/yr for the entire facility (total all three boilers). On an annual basis, it is expected that bagasse will provide 60 percent of the biomass heat input, with wood waste providing 40 percent.



Under the worst-case fuel oil burning case of firing No. 2 fuel oil at 24.9 percent of the total annual heat input, the annual heat input requirement for the entire facility becomes  $10.83 \times 10^{12}$  Btu/yr, due to the different heat transfer efficiency for No. 2 fuel oil versus biomass. Similarly, under the worst-case coal firing scenario of firing coal at 15.1 percent of the total annual heat input, the annual heat input requirement for the entire facility becomes  $11.08 \times 10^{12}$  Btu/yr. Under the worst-case TDF firing scenario of 21.9 percent of the total annual heat input (9.0 percent on a weight basis), the annual heat input requirement for the entire facility is  $11.50 \times 10^{12}$  Btu/yr.

### **2.2.3 FACILITY PLOT PLAN**

A plot plan of the OkPLP cogeneration facility is presented in Figure 2-4. The major structure at the site is the boiler building. This building has a height of approximately 121 feet above ground.

### **2.2.4 CONTROL EQUIPMENT INFORMATION**

The cogeneration facility will utilize several emission control techniques to reduce emissions. A selective non-catalytic reduction (SNCR) system will be used to reduce  $\text{NO}_x$  emissions. SNCR is a system which injects urea into the boiler to reduce  $\text{NO}_x$  emissions. Further, the cogeneration boilers will minimize CO and VOC through proper furnace design and good combustion practices, including: control of combustion air and combustion temperature; distribution of fuel on the combustion grate; and better controls over the furnace loads and transient conditions. Particulate emissions will be controlled by an ESP. Mercury emissions will be controlled through a carbon injection system and the ESP system.

#### Mercury Control System

The mercury control system is supplied by ABB Environmental Systems and Chemco, Inc. A volumetric feeder with integral supply hopper meters activated carbon for injection at a point in the ductwork between the furnace and the ESP. This promotes turbulent mixing and provide adequate residence time. A blower system transports the carbon to the injection point. The ESP will effectively capture the activated carbon particles along with the boiler fly ash (which also contains some carbon). The system is designed to inject up to 32 lb/hr of carbon into the flue gases of each boiler.

### **2.2.5 STACK PARAMETERS**

Stack parameters for the cogeneration facility are presented in Table 2-3. The parameters reflect actual operating data based on the compliance testing. Each of the three boilers are served by a separate stack. The top of each stack is 225 feet (ft) above ground. Each stack is 10.0 ft in diameter. The locations of the three stacks are shown in Figure 2-4.

## **2.3 REVISIONS TO PERMITTED BOILER EMISSION LIMITS**

### **2.3.1 LIMITS FOR CRITERIA/DESIGNATED POLLUTANTS**

The emission limits for all criteria/designated pollutants emitted by the OkPLP boilers are presented in Table 2-4. The emission limits in terms of lb/MMBtu are the same as currently permitted, except in the case of SO<sub>2</sub>, Pb and Hg emissions due to wood waste firing. These revisions are being requested due to higher than expected levels of sulfur, lead and mercury in the wood waste fuel. The basis for these permit revisions are described below. A change in the averaging time associated with the CO emission limit for all fuels is also requested.

#### **2.3.1.1 Sulfur Dioxide**

The current permit limits for SO<sub>2</sub> emissions for biomass fuel are 0.1 lb/MMBtu for a 24-hour average, and 0.02 lb/MMBtu as a 30-day rolling average. Thus, the limits for bagasse and wood waste are the same. At the time of the original permit application, very little information was available regarding the sulfur content of wood wastes. Based on limited data from the Okeelanta sugar mill, it was concluded that the sulfur contents of the two fuels were similar. The limits were based on sulfur contents of 0.045% (max) and 0.009% (avg.), wet basis. Although inherent SO<sub>2</sub> removal in the boiler system due to the alkaline nature of wood and bagasse ash was expected, no removal was considered in calculating the equivalent SO<sub>2</sub> emissions.

Based on analysis of the wood waste OkPLP is receiving, the sulfur content of the wood waste is higher than anticipated. OkPLP obtains fuel analysis data on the wood waste delivered to the facility. The data show a wide range of sulfur contents, depending on the source and/or supplier of the wood waste. Data from different suppliers are summarized in Table 2-5. As shown, the average sulfur content of wood waste from specific suppliers can range from 0.02% to 0.17% sulfur (dry basis), equivalent to 0.05 to 0.44 lb/MMBtu SO<sub>2</sub> emissions. However, the overall average of all deliveries cannot be estimated because the frequency of deliveries and quantity of wood waste delivered varies considerably for each supplier.

Data obtained to date from OkPLP's and OsPLP's compliance test data shows that SO<sub>2</sub> emissions due to wood waste firing are in the range of 0.02 to 0.08 lb/MMBtu, and average 0.05 lb/MMBtu (see Table 2-6). CEMS data for SO<sub>2</sub> from January-March 1997 are summarized in Table 2-7. These data indicate that significant SO<sub>2</sub> removal is indeed occurring in the boiler system. Although significant SO<sub>2</sub> capture in the alkaline fly ash is indicated, the current annual average SO<sub>2</sub> emission limit of 0.02 lb/MMBtu may not be achievable for wood waste. Based on the compliance testing and CEMS results, an annual average SO<sub>2</sub> emission limit of 0.05 lb/MMBtu is proposed for wood waste. The current limit of 0.02 lb/MMBtu for bagasse is being retained at this time. This limit, however, may be subject to revision based upon further testing with bagasse.

#### **2.3.1.2 CARBON MONOXIDE**

The current limit for CO emissions from biomass burning is 0.35 lb/MMBtu based on an 8-hour averaging time. This limit was based on the boiler manufacturer's design. CO emissions data obtained to date from OkPLP's and OsPLP's compliance testing are presented in Table 2-6. These data indicate that the emission limit has been achieved during the compliance tests. However, data from OkPLP's CEMS for CO indicates that CO emissions due to wood waste firing can exceed the emission limit based on an 8-hour averaging time. During January - April 1997, the boilers at OkPLP experienced several excursions of the emission limit, with 8-hour CO averages up to 0.7 lb/MMBtu. Most of these excursions were attributed to unusually wet wood waste or bagasse fuel. Wood waste fuel is by nature high in moisture (30-50%). Abnormally wet biomass fuel is usually due to a heavy rain event which causes the fuel to become wetter than normal.

Based on review of the CEMS data, OkPLP believes that the current CO limit is achievable if it is based on a 24-hour averaging time basis. The longer averaging time will allow fluctuations in fuel quality (and therefore CO emissions) to occur on a short-term basis, but will not increase daily or annual CO emissions. Thus, it is requested that the averaging time for the CO emissions limit be revised to reflect a 24-hour averaging time. In order to be consistent, it is requested that the averaging time for the CO limits for No. 2 fuel oil, coal, and TDF also be specified as a 24-hour basis.

### 2.3.1.3 LEAD

The current emission limit for Pb for biomass fuel is  $2.5 \times 10^{-5}$  lb/MMBtu. The limits for bagasse and wood waste are the same. At the time of the original permit application, very little information was available regarding the lead content of wood wastes or emissions of lead from wood-fired boilers. The emission limit of  $2.5 \times 10^{-5}$  lb/MMBtu was based on the average emissions from three wood-fired boilers controlled by an ESP, as reported by Sassenrath (1991).

OkPLP has conducted analysis of wood wastes for Pb content. The results of these analysis are presented in Table 2-8. As shown, the Pb content of the wood waste has ranged between 0.5 and 350 ppm. The high value of 350 ppm appears to be an outlier, as the next highest value is only 37.8 ppm. Excluding the high value, the average Pb content is 7.9 ppm. This is equivalent to uncontrolled Pb emissions of  $1.0 \times 10^{-3}$  lb/MMBtu, assuming 8,000 Btu/lb (dry) for wood waste.

Data obtained to date from OkPLP's and OsPLP's compliance test data shows that Pb emissions due to wood waste firing are in the range of  $1.23 \times 10^{-5}$  to  $13.6 \times 10^{-5}$  lb/MMBtu, with an average of  $5.25 \times 10^{-5}$  lb/MMBtu (see Table 2-6 ). Compared to the Pb levels measured in the wood waste fuel, these data indicate that significant Pb removal is occurring in the ESP system. Based on the average Pb levels in the fuel, the average Pb removal efficiency is calculated to be 97 percent.

Although significant Pb capture in the ESP system is indicated, the current Pb emission limit of  $2.5 \times 10^{-5}$  lb/MMBtu may not be achievable for wood waste. Based on the compliance testing results, an emission limit of  $1.6 \times 10^{-4}$  lb/MMBtu is proposed for wood waste. This value represents the upper 95% confidence level of the compliance test data (i.e., there is 95% confidence that this value will not be exceeded during a compliance test; refer to Table 2-6). The current  $2.5 \times 10^{-5}$  lb/MMBtu limit for bagasse is being retained at this time. This limit, however, may be subject to revision based upon further testing with bagasse.

### 2.3.1.4 MERCURY

The current emission limit for Hg for bagasse fuel is  $6.3 \times 10^{-6}$  lb/MMBtu, and for wood waste, is  $0.29 \times 10^{-6}$  lb/MMBtu. Thus, the limits for bagasse and wood waste are different. At the time of the original permit application, very little information was available regarding the Hg content of wood wastes or emissions of Hg from wood-fired boilers. The original emission limit of  $0.29 \times 10^{-6}$  lb/MMBtu for wood waste was based on the average emissions from three wood fired

boilers controlled by an ESP, as reported by Sassenrath (1991). A control efficiency of 30% was then applied to this emission rate based on the use of a carbon injection system for Hg control.

OkPLP has conducted analysis of wood wastes for Hg content, and these analysis are presented in Table 2-8. As shown, the Hg content of the wood waste has ranged between 0.025 and 1.00 ppm, with an average of 0.095 ppm. This average is equivalent to uncontrolled emissions of Hg of  $1.2 \times 10^{-5}$  lb/MMBtu, assuming 8,000 Btu/lb (dry) for wood waste.

Data obtained to date from OkPLP's and OsPLP's compliance test data, presented in Table 2-9, shows that Hg emissions due to wood waste firing are in the range of  $0.95 \times 10^{-6}$  to  $3.23 \times 10^{-6}$  lb/MMBtu, with an average of  $1.90 \times 10^{-6}$  lb/MMBtu. Compared to the Hg levels measured in the wood waste fuel, these data indicate that significant Hg removal is occurring in the ESP system. Based on the average Hg levels in the fuel, the average Hg removal efficiency is calculated to be 84%.

OkPLP has conducted several Hg emission tests for the purposing of better quantifying Hg emissions, as well as the effectiveness of the Hg removal system (carbon injection system). The results of these tests are shown in Table 2-10. As shown, three tests were conducted at each of three carbon injection rates. The amount of fuel burned and the Hg content of the fuel were utilized to calculate the Hg input to the boiler. The stack tests results were then used to calculate the amount of Hg emitted to the atmosphere. This calculation shows that the Hg removal efficiency of the system ranged from 17% to 93%, with an average of 69%. This removal efficiency is well above the 30% removal which formed the basis of the original air permit for the OkPLP facility. The test data also show that the level of Hg emissions or calculated removal efficiency does not appear to be related to the amount of carbon injection.

Although significant Hg capture in the ESP system is indicated, the current Hg emission limit of  $0.29 \times 10^{-6}$  lb/MMBtu for wood waste appears to be too low. Based on the compliance testing results, an emission limit of  $4.0 \times 10^{-6}$  lb/MMBtu is proposed for wood waste. This limit represents a value somewhat greater than the highest measured Hg emission rate of  $3.23 \times 10^{-6}$  lb/MMBtu (refer to Table 2-9).

The current Hg limit of  $6.3 \times 10^{-6}$  lb/MMBtu limit for bagasse is being lowered slightly at this time (to  $5.43 \times 10^{-6}$  lb/MMBtu) in order to maintain total annual Hg emissions from the facility at 0.0300 TPY. This limit, however, may be subject to revision based upon further testing with bagasse.

#### **2.4 EMISSION RATES FOR REGULATED POLLUTANTS**

Maximum hourly emissions from each of the OkPLP boilers for each fuel are presented in Table 2-11. This table reflects the proposed SO<sub>2</sub>, CO, Pb and Hg emission limits for wood waste firing. Since TDF will always be burned in combination with biomass, with up to 25 percent TDF on a weight basis, emission rates are also presented for 25 percent TDF/75 percent biomass firing (weight basis). As shown, the maximum hourly emissions occur when burning either biomass, biomass/TDF, or coal. The maximum hourly emissions are the same as currently permitted emissions, except in the case of Pb.

The total annual emissions from all three boilers for each fuel scenario, including the proposed TDF firing, are presented in Table 2-12. These are based upon the same emission factors as presented in Table 2-4, including the revised limits for SO<sub>2</sub>, Pb and Hg. The total maximum annual emission rate for each pollutant is based upon the worst-case fuel operating scenario and is identified in the far right column of Table 2-12. The maximum annual emissions for all of the criteria/designated pollutants are the same as currently permitted, except for the case of Pb. For Pb, annual emissions are slightly higher than currently permitted. As described in the TDF application, although maximum annual emissions of beryllium, fluorides, and sulfuric acid mist are all lower than permitted due to the reduction in coal firing to 15.1 percent coal burning in any one year, it is requested that the current permit limits be retained to allow flexibility in fuel mix in the future.

Maximum annual emissions per boiler for the OkPLP facility are presented in Attachment A.

#### **2.7 COMPLIANCE DEMONSTRATION**

OkPLP will continue to demonstrate compliance with the maximum heat input limits for the facility by monitoring fuel input rates and fuel characteristics on a periodic basis. Steam production parameters (i.e., steam quantity, pressure, and temperature) and feedwater parameters will be continuously monitored to allow calculation of heat input by use of an assumed heat

transfer efficiency for each fuel. In addition, per the zoning conditions recommended by Palm Beach County and agreed to by OkPLP, stack testing will be performed for PM, NO<sub>x</sub>, CO, SO<sub>2</sub>, lead, mercury, and VOC every 6 months during the first 2 years of operation. If these tests show compliance with the permitted emission limits, the stack testing frequency will be reduced to that typically required by FDEP (i.e., once every year or once every 5 years, depending upon pollutant). Based on these tests, additional revisions of permit limitations may be required. Any such revisions will be submitted to the Department for approval.

Table 2-1. Design Fuel Specifications<sup>a</sup> for the OkPLP Facility

Parameter	Biomass		No. 2 Fuel Oil	Bituminous Coal	Tire-Derived Fuel
	Bagasse	Wood Waste			
Specific Gravity	—	—	0.865	—	—
Heating Value (Btu/lb)	4,250	5,500	19,175	12,000	15,500
Heating Value (Btu/gal)	—	—	138,000	—	—
Ultimate Analysis (dry basis percentage):					
Carbon	48.93	49.58	87.01	82.96	84.4
Hydrogen	6.14	5.87	12.47	5.41	7.1
Nitrogen	0.25	0.40	0.02	1.58	0.24
Oxygen	43.84	40.90	0.00	5.72	2.18
Sulfur	0.02 - 0.10	0.02 - 0.17	0.50	0.67	1.23
Ash/Inorganic	0.83	3.24	0.00	3.66	4.9
Moisture	52	37	—	4.5	0.6

<sup>a</sup> Represents average fuel characteristics.

Sources: Okeelanta Corp., 1992.  
Combustion Engineering, 1981.  
Waste Recovery, Inc., 1986.  
Okeelanta Power Limited Partnership, 1997.



Table 2-2. Maximum Fuel Usage and Heat Input Rates, Okeelanta Power Limited Partnership

Fuel	Heat Input	Heat Transfer Efficiency (%)	Heat Output	Fuel Firing Rate
<u>Maximum Short-Term (per boiler)</u>				
Biomass: Bagasse	715 MMBtu/hr	68	486 MMBtu/hr	168,235 lb/hr <sup>a</sup>
Wood Waste	715 MMBtu/hr	68	486 MMBtu/hr	130,000 lb/hr <sup>b</sup>
No. 2 Oil	490 MMBtu/hr	85	417 MMBtu/hr	3,551 gal/hr
Coal	490 MMBtu/hr	85	417 MMBtu/hr	40,833 lb/hr
Tire-Derived Fuel	340 MMBtu/hr	68	231 MMBtu/hr	21,935 lb/hr
<u>Annual Average (total all three boilers)</u>				
<u>NORMAL OPERATIONS</u>				
Biomass	1.150E+13 Btu/yr	68	7.820E+12 Btu/yr	1,352,941 TPY <sup>a</sup>
No. 2 Oil	0 Btu/yr	85	0 Btu/yr	0 gal/yr
Coal	0 Btu/yr	85	0 Btu/yr	0 TPY
Tire-Derived Fuel	0 Btu/yr	68	0 Btu/yr	0 TPY
TOTAL	1.150E+13 Btu/yr		7.820E+12 Btu/yr	
<u>24.9% OIL FIRING</u>				
Biomass	8.130E+12 Btu/yr	68	5.528E+12 Btu/yr	956,471 TPY
No. 2 Oil	2.696E+12 Btu/yr	85	2.291E+12 Btu/yr	19,533,086 gal/yr
Coal	0 Btu/yr	85	0 Btu/yr	0 TPY
Tire-Derived Fuel	0 Btu/yr	68	0 Btu/yr	0 TPY
TOTAL	1.083E+13 Btu/yr		7.820E+12 Btu/yr	
<u>15.1% COAL FIRING</u>				
Biomass	9.408E+12 Btu/yr	68	6.397E+12 Btu/yr	1,106,824 TPY
No. 2 Oil	0 Btu/yr	85	0 Btu/yr	0 gal/yr
Coal	1.673E+12 Btu/yr	85	1.422E+12 Btu/yr	69,720 TPY
Tire-Derived Fuel	0 Btu/yr	68	0 Btu/yr	0 TPY
TOTAL	1.108E+13 Btu/yr		7.820E+12 Btu/yr	
<u>21.9% TIRE-DERIVED FUEL FIRING (9.0% TDF, weight basis)</u>				
Biomass	8.982E+12 Btu/yr	68	6.108E+12 Btu/yr	816,545 TPY <sup>b</sup>
No. 2 Oil	0 Btu/yr	85	0 Btu/yr	0 gal/yr
Coal	0 Btu/yr	85	0 Btu/yr	0 TPY
Tire-Derived Fuel	2.519E+12 Btu/yr	68	1.713E+12 Btu/yr	81,246 TPY
TOTAL	1.150E+13 Btu/yr		7.820E+12 Btu/yr	

Note: Total heat output required = 486 MMBtu/hr each boiler, and  
7.820E+12 Btu/yr total all boilers.

Fuels may be burned in combination, not to exceed indicated total heat outputs.

<sup>a</sup>a Based on heating value for bagasse of 4,250 Btu/lb, wet basis.

<sup>b</sup>b Based on heating value for wood waste of 5,500 Btu/lb.

Table 2-3. Stack Parameters for the OKPLP Facility

	Boilers (each)				Boiler House Baghouse	Fly Ash Silo Filter	Carbon Silo Filter
	Biomass	Oil	Coal	TDF/Biomass			
Heat Input Rate (MMBtu/hr)	715	490	490	715	—	—	—
Stack Height (ft)	225	225	225	225	10	110	24
Stack Diam. (ft)	10.0	10.0	10.0	10.0	4.0 x 4.0	2.0 x 2.0	2.0 x 2.0
Gas Flowrate (acfm)	246,000 - 326,000	140,000 - 150,000	211,000 - 227,000	246,000 - 326,000	30,000	1,000	1,000
Gas Velocity (ft/s)	52.2 - 69.2	29.7 - 31.8	44.8 - 48.2	52.2 - 69.2	31.3	4.2	4.2
Gas Temperature (°F)	295 - 340	295 - 350	295 - 350	295 - 350	80	100	80

Note: acfm = actual cubic feet per minute.  
 °F = degrees Fahrenheit.  
 ft = feet.  
 ft/s = feet per second.

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									
3-Hour Average	—	—	—	—	1.2	588.0	—	—	—
24-Hour Average	0.10	71.5	0.05	24.5	1.2	588.0	1.2	408.0	—
Annual Average									
Bagasse	0.02 <sup>a,b</sup>	—	—	—	1.2 <sup>a</sup>	—	0.8 <sup>a</sup>	—	1,154.3 <sup>f</sup>
Woodwaste	0.05 <sup>c</sup>								
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									
24-Hour Average	0.35	250.3	0.2	98.0	0.2	98.0	0.35	119.0	2,012.5
VOCs	0.06	42.9	0.03	14.7	0.03	14.7	0.06	20.4	345.0
Lead									
Bagasse	2.5 x 10 <sup>-5 b</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
Wood Waste	1.6 x 10 <sup>-4 c</sup>	0.1144 <sup>c</sup>							
Mercury									
Bagasse	5.43 x 10 <sup>-6 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	6.5 x 10 <sup>-6</sup>	0.0022	0.0300
Wood Waste	4.0 x 10 <sup>-6 c</sup>	0.0029 <sup>c</sup>							
Beryllium	—	—	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
Fluorides	—	—	6.3 x 10 <sup>-6</sup>	0.0031	0.024	11.8	6.5 x 10 <sup>-4</sup>	0.22	21.2
Sulfuric Acid Mist	0.003	2.15	0.0015	0.74	0.036	17.6	0.010	3.40	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.

<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 2-5. Sulfur Analysis of Wood Waste, OKPLP, January 1997

Supplier	Sulfur Content (%S, dry)	Heating Value (Btu/lb, dry)	Equivalent SO2 Emissions (lb/MMBtu)
Supplier A	0.07	7,531	0.186
Supplier B	0.06	8,283	0.145
Supplier C	0.08	7,471	0.214
Supplier D	0.08	7,320	0.219
Supplier E	0.07	7,130	0.196
Supplier F	0.08	7,486	0.214
Supplier G	0.04	8,405	0.095
Supplier H	0.05	8,447	0.118
Supplier I	0.11	8,074	0.272
Supplier J	0.05	8,557	0.117
Supplier K	0.07	7,752	0.181
Supplier L	0.02	8,591	0.047
Supplier M	0.06	8,214	0.146
Supplier N	0.15	8,338	0.360
Supplier O	0.05	8,349	0.120
Supplier P	0.13	8,542	0.304
Supplier Q	0.07	6,994	0.200
Supplier R	0.12	8,213	0.292
Supplier S	0.03	7,999	0.075
Supplier T	0.11	7,987	0.275
Supplier U	0.13	7,560	0.344
Supplier V	0.11	8,042	0.274
Supplier W	0.17	7,670	0.443
Minimum	0.02	6,994	0.047
Maximum	0.17	8,591	0.443

Table 2-6. Stack Test Data for OkPLP and OsPLP Cogeneration Units Burning Wood Waste - SO<sub>2</sub>, CO, Pb

Boiler/Run	Sulfur Dioxide (SO <sub>2</sub> )				Carbon Monoxide (CO)				Lead (Pb)			
	Test Date	(ppmvd @ 7 % O <sub>2</sub> )	(lb/hr)	(lb/MMBtu)	Test Date	(ppmvd @ 7 % O <sub>2</sub> )	(lb/hr)	(lb/MMBtu)	Test Date	(mg/dscm @ 7 % O <sub>2</sub> )	(lb/hr)	(lb/MMBtu)
<b>Okeelanta Unit A</b>												
1	5/11/96	24.2	35.64	0.0514	5/10/96	268.5	166.38	0.249	5/10/96	0.0436	2.46E-02	3.48E-05
2	5/12/96	27.6	40.07	0.0586	5/10/96	181.4	118.89	0.168	5/11/96	0.0215	1.29E-02	1.71E-05
3	5/12/96	34.1	49.89	0.0723	5/10/96	168.7	110.59	0.157	5/11/96	0.0264	1.46E-02	2.10E-05
Average		28.6	41.87	0.0608		206.2	131.95	0.191		0.0305	1.74E-02	2.43E-05
4	5/29/96	29.2	44.97	0.0620	---	---	---	---	---	---	---	---
5	5/30/96	32.9	51.03	0.0700	---	---	---	---	---	---	---	---
6	5/30/96	30.9	50.60	0.0660	---	---	---	---	---	---	---	---
Average		29.6	44.87	0.0630		---	---	---		---	---	---
<b>Okeelanta Unit B</b>												
1	5/15/96	30.0	49.97	0.0691	5/14/96	198.5	138.33	0.183	5/15/96	0.0163	9.13E-03	1.30E-05
2	5/16/96	36.8	63.92	0.0862	5/14/96	218.9	152.84	0.203	5/15/96	0.2505	8.75E-03	1.29E-05
3	5/16/96	37.5	59.41	0.0856	5/14/96	168.2	116.11	0.156	5/15/96	0.2159	7.57E-03	1.11E-05
Average		34.7	57.77	0.0803		195.2	135.76	0.181		0.1609	8.48E-03	1.23E-05
<b>Okeelanta Unit C</b>												
1	6/3/96	19.7	31.13	0.0470	5/22/96	172.9	112.37	0.181	5/22/96	0.0274	1.63E-02	2.46E-05
2	6/3/96	9.7	15.78	0.0240	5/22/96	194.6	129.74	0.203	5/23/96	0.0283	1.59E-02	2.54E-05
3	6/3/96	18.7	28.81	0.0447	5/22/96	214.1	139.00	0.224	5/23/96	0.0368	2.05E-02	3.30E-05
Average		16.1	25.24	0.039		193.8	127.04	0.203		0.0308	1.76E-02	2.77E-05
<b>Osceola Unit A</b>												
A - 1	12/15/96	17.3	26.5	0.038	12/14/96	208.3	144.4	0.22	12/15/96	0.0780	4.77E-02	7.04E-05
A - 2	12/15/96	14.4	21.5	0.032	12/14/96	171.0	104.4	0.18	12/15/96	0.0644	3.69E-02	5.82E-05
A - 3	12/15/96	4.6	7.3	0.010	12/14/96	203.8	134.9	0.21	12/15/96	0.0635	3.60E-02	5.74E-05
Average		12.1	18.4	0.027		194.4	127.9	0.20		0.0686	4.02E-02	6.20E-05
<b>Osceola Unit B</b>												
B - 1	12/18/96	4.1	6.4	0.009	12/18/96	100.7	70.0	0.11	12/17/96	0.116	6.93E-02	1.05E-04
B - 2	12/18/96	23.1	36.9	0.056	12/18/96	152.4	103.3	0.16	12/18/96	0.132	7.72E-02	1.22E-04
B - 3	12/18/96	1.6	2.4	0.004	12/18/96	131.4	89.6	0.14	12/18/96	0.197	1.23E-01	1.81E-04
Average		9.6	15.2	0.023		128.1	87.6	0.14		0.148	8.98E-02	1.36E-04
Compliance Test Minimum		9.6	15.2	0.023		128.1	87.6	0.14		0.031	8.48E-03	1.23E-05
Compliance Test Average		21.8	33.9	0.049		183.5	122.1	0.18		0.088	3.47E-02	5.25E-05
Compliance Test Maximum		34.7	57.8	0.080		206.2	135.8	0.20		0.161	8.98E-02	1.36E-04
Standard Deviation				0.023				0.027				5.02E-05
t-statistic				2.105				2.132				2.132
95% Upper Confidence Limit				0.097				0.242				1.60E-04
Permit Limit				0.100				0.350				2.5E-5 Okeelanta 2.7E-6 Osceola

Table 2-7. Summary of CEMS Data for SO<sub>2</sub>, OkPLP, 1997

Boiler	Month	No. of Hours	Daily Average SO <sub>2</sub> Emissions (lb/MMBtu)		
			Min.	Avg.	Max.
A	January	408	0.0470	0.0494	0.0510
	February	320	0.0170	0.0347	0.0520
	March (a)	23	0.0350	0.0350	0.0350
B	January	523	0.0180	0.0497	0.0780
	February	522	0.0110	0.0308	0.0550
	March	322	0.0180	0.0412	0.0620
C	January	384	0.0590	0.0601	0.0620
	February	434	0.0150	0.0280	0.0500
	March	575	0.0220	0.0424	0.0740
	Total hours =	3,511			
	Minimum =		0.0110		
	Average =			0.0419	
	Maximum =				0.0780

(a) Average consists of only one set of data.

Table 2-8. Mercury and Lead Content (mg/kg wet) of Wood Waste Received at OkPLP

Test Date	Lead	Mercury	Test Date	Lead	Mercury
07/15/96	4.2	0.065 (a)	09/16/96	5.4	0.029 (a)
07/16/96	4.1	0.060 (a)	09/23/96	28.0	0.066
07/21/96 (b)	6.9	0.062 (c)	10/05/96	3.5	0.029 (a)
07/25/96	11.0	0.260	11/25/96	3.9	0.025 (a)
07/29/96	10.0	0.160	12/02/96	4.7	0.029 (a)
07/29/96	6.3	0.025 (a)	12/09/96	5.1	0.091
07/31/96	4.0	0.090	12/13/96	2.3	0.029 (a)
08/5/96	2.0	0.025 (a)	12/17/96	18.0	0.029 (a)
08/7/96	0.5 (a)	0.025 (a)	12/18/96	22.0	0.087
08/9/96	4.7	0.025 (a)	12/20/96	5.0 (a)	0.025 (a)
08/12/96	0.5 (a)	0.200	01/14/97	3.2	0.025 (a)
08/15/96	4.0	0.025 (a)	01/20/97	5.4	1.000
08/16/96 (b)		0.530	01/22/97	16.0	0.025 (a)
08/20/96 (b)	7.7	0.041 (c)	01/24/97	7.8	0.062
08/21/96 (b)	37.8	0.078 (c)	01/28/97	350.0	0.050 (a)
08/23/96	16.0	0.029 (a)	01/29/97 (b)	3.1	0.038
08/27/96	2.8	0.029 (a)	02/03/97	2.8	0.025
08/29/96	8.0	0.029 (a)	02/05/97	0.5 (a)	0.050 (a)
09/04/96 (b)	16.5	0.045 (c)	02/07/97	1.4	0.050 (a)
09/06/96	9.5	0.029 (a)			
09/11/96	7.2	0.029 (a)	Minimum	0.5	0.025
09/13/96	5.9	0.250	Average	7.9	0.095
			Maximum	37.8	1.000

## Note:

(a) Value represents 50% of detection limit

(b) Value is an average of multiple analysis on the given day.

(c) Value includes one analysis that represents 50% of detection limit.

Table 2-9. Mercury Stack Test Data for OkPLP and OsPLP Burning Wood Waste

Boiler/Run	Test Date	Mercury (Hg)		
		(mg/dscm @ 7 % O2)	(lb/hr)	(lb/MMBtu)
<b>Okeelanta Unit A</b>				
1	5/11/96	1.86E-03	1.04E-03	1.48E-06
2	5/11/96	9.55E-04	5.13E-04	7.62E-07
3	5/11/96	8.59E-04	4.69E-04	6.84E-07
Average		1.22E-03	6.74E-04	9.75E-07
<b>Okeelanta Unit B</b>				
1	5/14/96	1.26E-03	6.95E-04	1.00E-06
2	5/14/96	1.21E-03	6.75E-04	9.65E-07
3	5/14/96	1.13E-03	6.39E-04	8.97E-07
Average		1.20E-03	6.70E-04	9.54E-07
1	12/09/96	2.63E-03	1.38E-03	2.09E-06
2	12/09/96	2.52E-03	1.34E-03	2.00E-06
3	12/10/96	2.98E-03	1.54E-03	2.38E-06
Average		2.71E-03	1.42E-03	2.16E-06
4	12/10/96	1.84E-03	1.08E-03	1.46E-06
5	12/10/96	1.84E-03	1.04E-03	1.46E-06
6	12/10/96	1.66E-03	9.90E-04	1.32E-06
Average		1.78E-03	1.04E-03	1.41E-06
7	12/11/96	1.94E-03	1.03E-03	1.54E-06
8	12/12/96	2.46E-03	1.35E-03	1.95E-06
9	12/12/96	2.51E-03	1.24E-03	1.99E-06
Average		2.30E-03	1.21E-03	1.83E-06
<b>Okeelanta Unit C</b>				
1	5/23/96	2.21E-03	1.30E-03	1.98E-06
2	5/23/96	2.23E-03	1.24E-03	1.90E-06
3	5/23/96	1.25E-03	7.13E-04	1.12E-06
Average		1.89E-03	1.09E-03	1.66E-06
2	12/13/96	3.43E-03	1.95E-03	2.72E-06
3	12/13/96	2.85E-03	1.63E-03	2.26E-06
4	12/13/96	3.31E-03	1.84E-03	2.63E-06
Average		3.20E-03	1.81E-03	2.54E-06
5	12/14/96	2.46E-03	1.37E-03	1.96E-06
6	12/14/96	2.29E-03	1.25E-03	1.82E-06
7	12/14/96	2.32E-03	1.28E-03	1.85E-06
Average		2.36E-03	1.30E-03	1.88E-06
8	12/15/96	2.18E-03	1.24E-03	1.74E-06
9	12/15/96	2.37E-03	1.25E-03	1.88E-06
10	12/15/96	1.85E-03	1.01E-03	1.48E-06
Average		2.14E-03	1.17E-03	1.70E-06
<b>Osceola Unit A</b>				
A - 1	12/15/96	3.12E-03	1.91E-03	2.82E-06
A - 2	12/15/96	3.22E-03	1.84E-03	2.91E-06
A - 3	12/15/96	2.00E-03	1.13E-03	1.81E-06
Average		2.78E-03	1.63E-03	2.51E-06
<b>Osceola Unit B</b>				
B - 1	12/17/96	3.33E-03	1.20E-03	3.02E-06
B - 2	12/18/96	3.69E-03	2.15E-03	3.39E-06
B - 3	12/18/96	3.59E-03	2.24E-03	3.29E-06
Average		3.54E-03	1.86E-03	3.23E-06
Compliance Test Minimum		1.20E-03	6.70E-04	9.54E-07
Compliance Test Average		2.28E-03	1.26E-03	1.90E-06
Compliance Test Maximum		3.54E-03	1.86E-03	3.23E-06
Standard Deviation				6.87E-07
t-statistic				1.812
95% Upper Confidence Limit				3.14E-06
Permit Limit				2.9E-7



Table 2-10. Calculated Mercury Removal Efficiency at OkPLP

Test Date	Carbon Injection Setting(a) (Hertz)	Run	Run Time (hrs)	Fuel Usage (tons - wet)	Fuel Analysis				Hg Stack Emissions		Calculated Hg Removal Efficiency
					Hg Conc. (mg/kg,dry)	Moisture Content (%)	Hg Conc. (mg/kg,wet)	Hg Content (lbs)	(lbs/hr)	(lbs)	
<b>Boiler B</b>											
12/09/96	15	1	2.10	124.36	0.230	26	0.170	0.0423	1.38E-03	2.90E-03	93.15%
12/09/96	15	2	2.05	100.71	0.064	36	0.041	0.0083	1.34E-03	2.75E-03	66.70%
12/10/96	15	3	2.07	115.37	0.080	29	0.057	0.0131	1.54E-03	3.18E-03	75.72%
12/10/96	30	4	2.07	128.05	0.075	34	0.050	0.0127	1.08E-03	2.23E-03	82.39%
12/10/96	30	5	2.22	123.50	0.015 (b)	25	0.011	0.0028	1.04E-03	2.31E-03	17.04%
12/10/96	30	6	2.05	121.76	0.049	30	0.034	0.0084	9.90E-04	2.03E-03	75.70%
12/11/96	45	7	2.03	104.48	0.043	28	0.031	0.0065	1.03E-03	2.09E-03	67.63%
12/12/96	45	8	2.03	100.24	0.055	26	0.041	0.0082	1.35E-03	2.75E-03	66.36%
12/12/96	45	9	2.03	99.54	0.066	28	0.048	0.0095	1.24E-03	2.52E-03	73.35%
										Average =	68.67%

- (a) Hertz settings represent approximately the following:  
 15 Hertz - 25% of max. injection rate or 7 lb/hr  
 30 Hertz - 50% of max. injection rate or 16 lb/hr  
 45 Hertz - 75% of max. injection rate or 23 lb/hr
- (b) Below detectable level. Value represents one-half the detectable level.

Table 2-11. 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) (lb/hr)	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	0.2	490	98.0	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 (c)	0.003	715	2.15	0.0015	490	0.74	0.036	490	17.64	0.010	340	3.40	4.53	17.64

- (a) 30-day rolling average.
- (b) 24-hour average.
- (c) 24-hour average.
- (d) Weight basis: 340 MMBtu/hr TDF and 375 MMBtu/hr biomass.

Table 2-12. Maximum Annual Emissions for Okeelanta Power Cogeneration Facility (total all boilers)

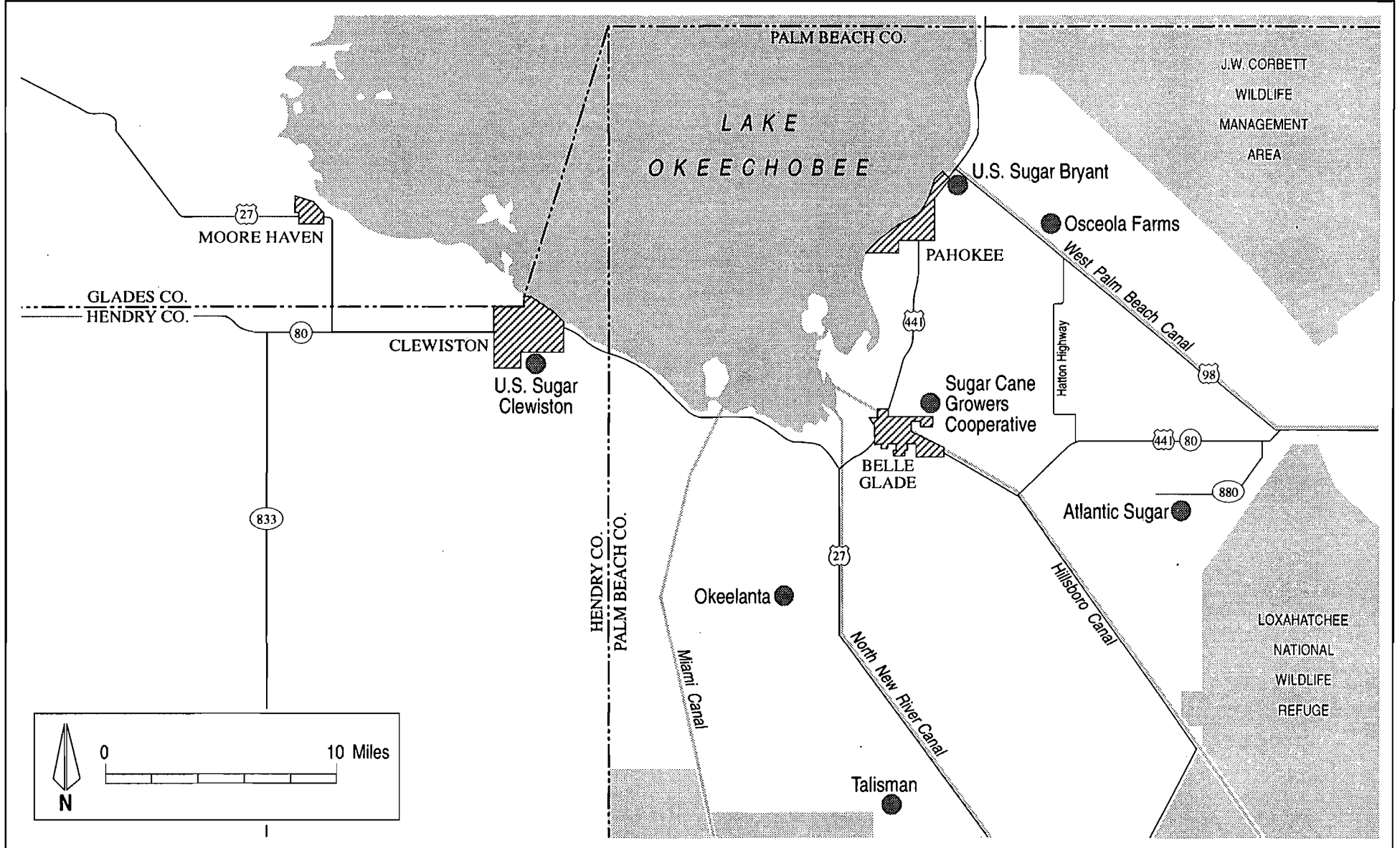
Regulated Pollutant	Biomass			Alternate Fuel			Total Annual Emissions (TPY)
	Emission Factor (lb/MMBtu)	Activity Factor (E12 Btu/yr)	Annual Emissions (TPY)	Emission Factor (lb/MMBtu)	Activity Factor (E12 Btu/yr)	Annual Emissions (TPY)	
<u>100% Biomass</u>							
Particulate (TSP)	0.03	11.500	172.50	--	--	--	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	0.2	2.696	269.60	1,692.35
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.

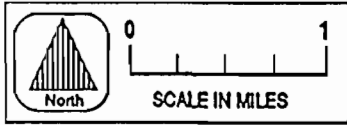
Note: No emissions of total reduced sulfur, asbestos, or vinyl chloride are expected.



2-23

Figure 2-1  
Regional Site Map





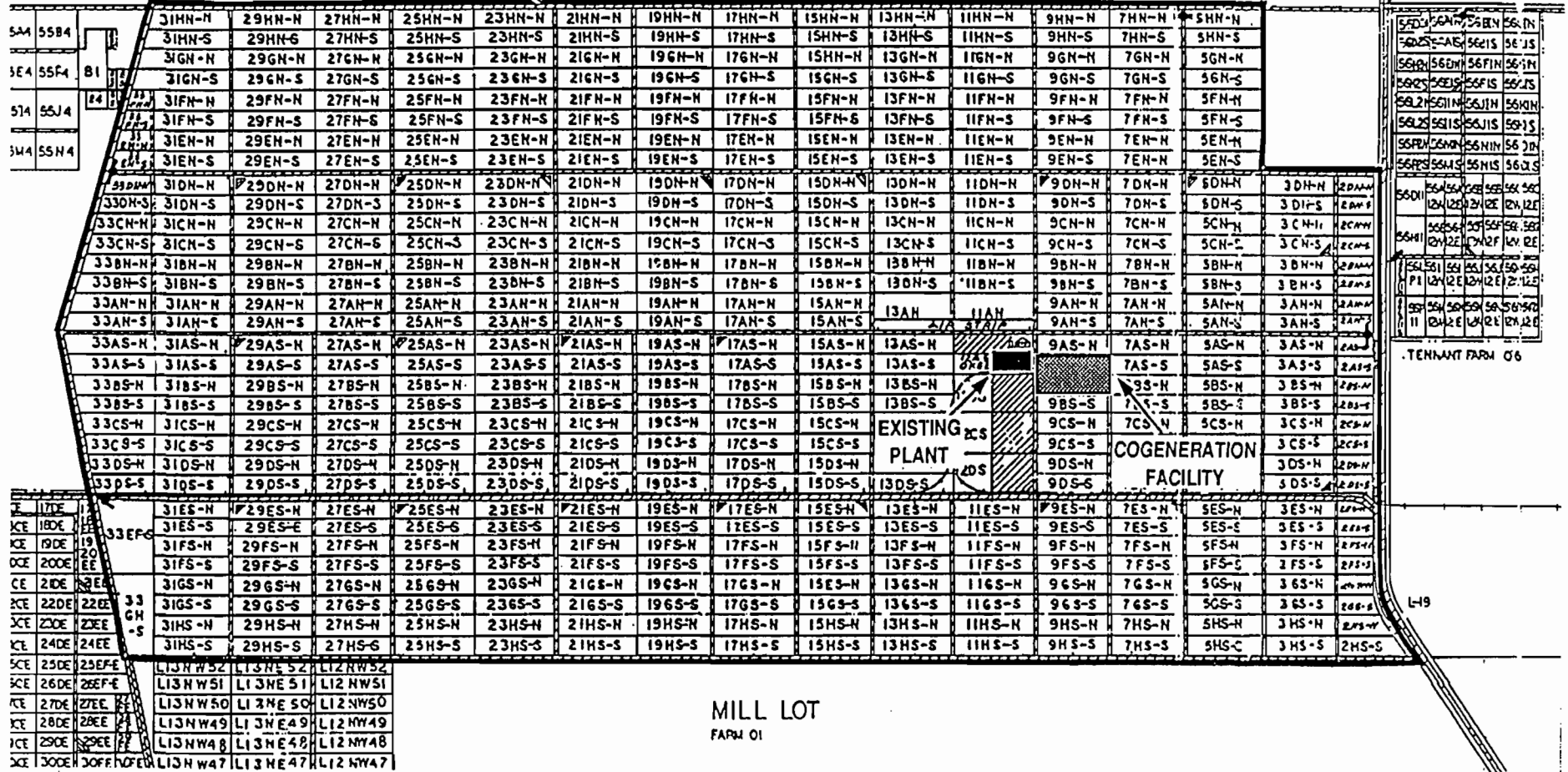
PROPERTY BOUNDARY

U.S. 27

MIAMI CANAL

BOLLES CANAL

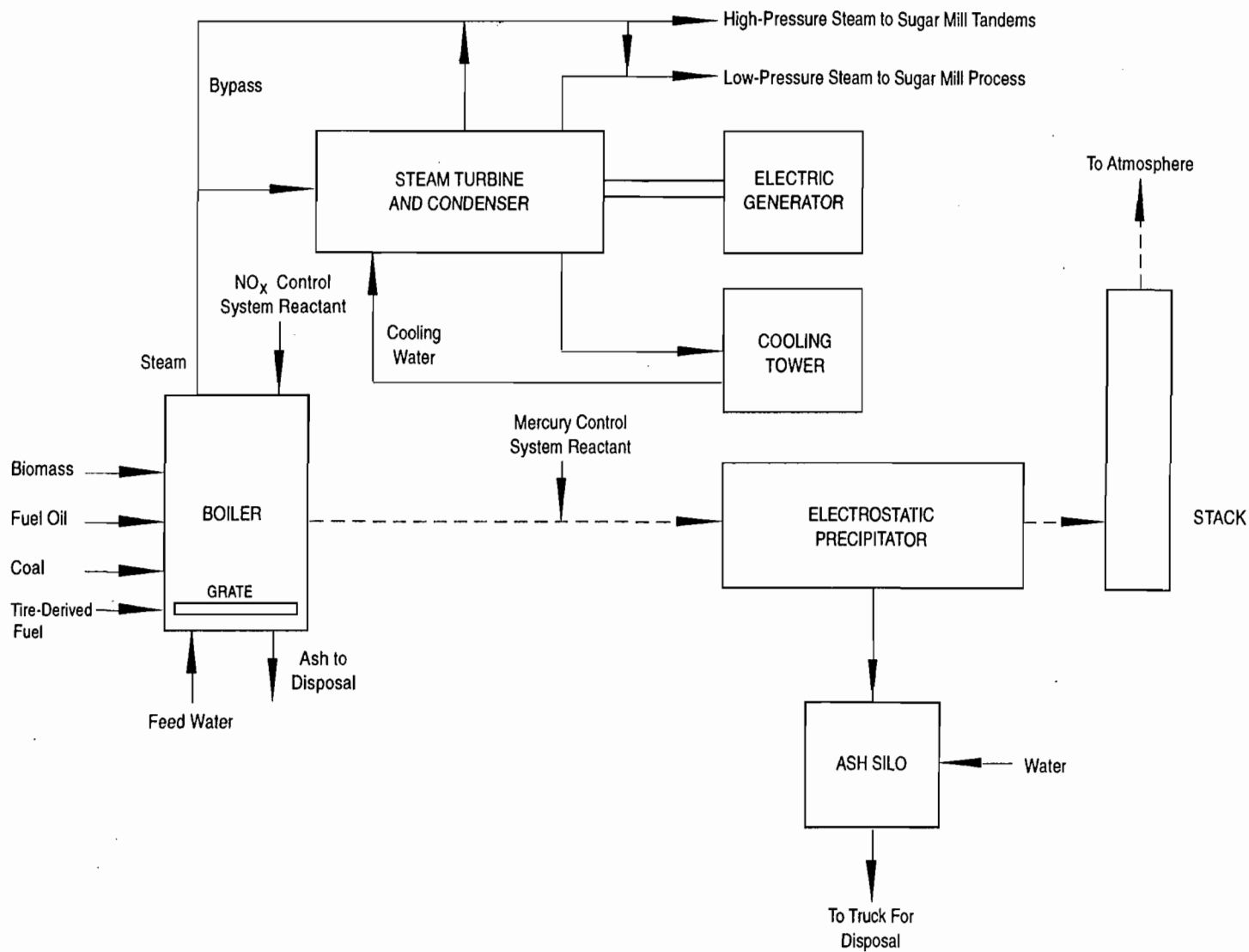
OCCELANTA BRIDGE



2-24

Figure 2-2 Location of Existing Sugar Mill and Cogeneration Facility





2-25

Figure 2-3  
Simplified Flow Diagram for Okeelanta Power Cogeneration Facility

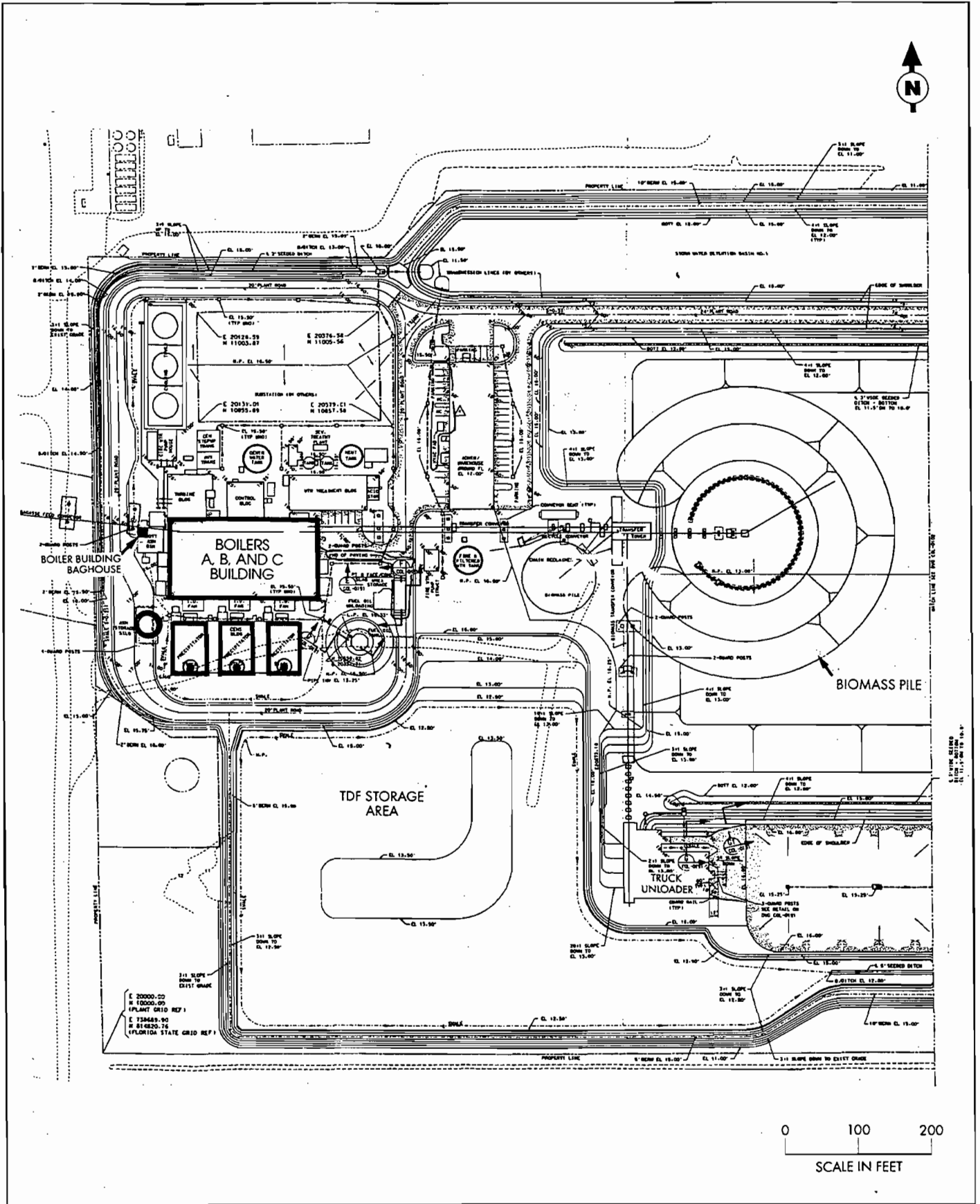


Figure 2-4  
Plot Plan of Okeelanta Power

Source: Bechtel, 1995.



### 3.0 AIR QUALITY REVIEW REQUIREMENTS AND SOURCE APPLICABILITY

OkPLP received a state and federal PSD construction permit in 1993. PSD review was triggered for SO<sub>2</sub>, beryllium, and fluorides. The facility is now operating and has conducted initial compliance testing on wood waste. Compliance testing on bagasse has not yet been conducted. OkPLP is now proposing changes to the emission limits of three pollutants for wood waste firing and desires to amend the PSD construction permit. The averaging time specified for the CO emissions limit for all fuels is also being revised. The requested emissions from the boilers are not greater than the currently permitted emissions, except in regards to annual emissions of Pb.

A revised PSD source applicability analysis for OkPLP, incorporating these changes, is provided in Table 3-1. The emissions also reflect to request to burn TDF. Although the emissions for all PSD pollutants are shown in Table 3-1, only the annual Pb emissions are being revised at this time. Since the facility does not yet have a two-year operational history, the original baseline emission rates presented in the PSD application in 1993 were used. As shown, based on the permit limits and the OkPLP maximum annual emissions, PSD review will not be triggered by this request.

Although PSD review is not being triggered by the proposed modification, changes are occurring in some air emission rates for Pb. As a result, the previous air toxics modeling analysis has been updated. This analysis is presented in Section 4.0.



Table 3-1. PSD Source Applicability Analysis for the OKPLP Facility

Regulated Pollutant	Cogeneration Facility Emissions (TPY)			Significant Emission Rate (TPY)	Current Permit Limit (TPY)	PSD Applies ?	Permit Amendment Required ?
	Baseline <sup>a</sup>	Requested Limits	Net Change				
Particulate (TSP)	473.7	200.0 <sup>b</sup>	-273.7	25	172.5 <sup>d</sup>	No	No
Particulate (PM10)	426.3	190.8 <sup>c</sup>	-235.5	15	172.5 <sup>d</sup>	No	No
Sulfur Dioxide	748.3	1,154.3	406.0	40	1,154.3	No	No
Nitrogen Oxides	888.7	862.5	-26.2	40	862.5	No	No
Carbon Monoxide	10,388.0	2,012.5	-8,375.5	100	2,012.5	No	No
VOC	401.9	345.0	-56.9	40	345.0	No	No
Lead	0.28	0.454	0.174	0.6	0.17	No	<b>Yes</b>
Mercury	0.0292	0.0300	0.0008	0.1	0.0300	No	No
Beryllium	0.0004	0.0049	0.0045	0.0004	0.0052	No	No
Fluorides	0.04	20.1	20.1	3	21.2	No	No
Sulfuric Acid Mist	22.4	32.9	10.5	7	34.6	No	No
Total Reduced Sulfur	--	--	0	10	--	No	No
Asbestos	--	--	0	0.007	--	No	No
Vinyl Chloride	--	--	0	0	--	No	No

<sup>a</sup> Emission offsets to be achieved by shutdown of existing Okeelanta Sugar Mill boilers.

<sup>b</sup> Includes 172.5 TPY from boilers and 27.5 TPY from fugitive dust sources.

<sup>c</sup> Includes 172.5 TPY from boilers and 18.3 TPY from fugitive dust sources.

<sup>d</sup> PM/PM10 emissions from boilers only; does not included fugitive dust sources.

## 4.0 AIR TOXICS MODELING ANALYSIS

### 4.1 INTRODUCTION

In support of the request to burn TDF as a supplemental fuel, OkPLP submitted a revised air modeling analysis for HAPs/toxics to the FDEP in May 1996. Based on the current request to increase emissions limits for Pb and Hg, an updated air modeling analysis is presented for all pollutants. This analysis incorporates revised stack parameters, as shown in Table 2-3.

### 4.2 METHODOLOGY

The procedure used in the analysis followed the recommendations in the U.S. Environmental Protection Agency's (EPA's) modeling guidelines, which are approved by FDEP for general use. The recommendations are related to specific models and options that are preferred for use in particular situations. The guidelines provide recommendations for predicting impacts in both flat or gently rolling terrain by the use of simple terrain models (i.e., terrain less than stack height). These models are applicable to the OkPLP facility.

The Industrial Source Complex Short-Term (ISCST) dispersion model, Version 95250 (ISCST3; EPA, 1995) is preferred because EPA and FDEP have specifically recommended this model to provide refined air quality impacts in simple terrain. The ISCST3 model is a Gaussian plume model that can be used to assess the air quality impact of emissions from a wide variety of sources associated with an industrial facility.

The ISCST3 model is designed to calculate hour-by-hour concentrations or deposition values and provide averages for time periods of 2-, 3-, 4-, 6-, 8-, 12-, and 24-hours and 1 year. The ISCST3 model has rural and urban options that affect the wind speed profile exponent law, dispersion rates, and mixing-height formulations used in calculating ground-level concentrations. Concentrations are readily obtainable from the model output for comparison to the Florida ambient reference concentrations (FARCs) developed by FDEP. A list of ISCST3 model features is presented in Table 4-1.

For the application of the ISCST3 model, the general modeling approach followed EPA and FDEP modeling guidelines for determining compliance with regulatory standards, such as FARCs.

One source, representing the Okeelanta cogeneration facility's three boilers, was modeled in the ISCST3 model with a generic emission rate of 10.0 grams per second (g/sec) (i.e., 79.365 lb/hr). The selected averaging times were for 8-hours, 24-hours, and annual average. The highest predicted 8-hour, 24-hour, and annual concentrations in 5 years were selected for comparison to the FARCs.

Short-term (i.e., maximum pound per hour) and annual averaged (i.e., tons per year) emission rates were determined for the OkPLP facility for each HAP and air toxic pollutant emitted. The emission rates for these compounds are provided in Section 2.0. The short-term emission rates for each pollutant were used for determining compliance with the 8-hour and 24-hour FARCs, while the annual averaged emissions were used for determining compliance with the annual FARC. The maximum pollutant-specific impact for each averaging time was determined by multiplying the maximum predicted generic concentration by the pollutant-specific emission rate and dividing the product by the generic emission rate.

Meteorological data used in the ISCST3 model to determine air quality impacts consisted of 5 years of coincident hourly surface weather observations and twice-daily upper-air soundings from the National Weather Service (NWS) station at the West Palm Beach International Airport. The 5-year period of meteorological data was from 1982 through 1986. These data have been recommended by FDEP for projects in the sugar mill area.

For the screening analysis, 36 receptors were located at 10-degree increments along the plant property boundary. A listing of these receptors is presented in Table 4-2. Modeling refinements were performed by using a 2-degree angular spacing along the plant property boundary. The refined receptor grid was centered on the screening analysis receptor that produced the highest impact and extended to and included the adjacent screening grid receptors.

Direction-specific building heights and widths that were used for these sources in the original modeling analysis for the cogeneration facility were also used in the toxic model analysis. The only significant structure near the cogeneration facility stacks is the cogeneration facility boiler structure (see Figure 2-5). The dimensions of this structure are 120 ft high, 180 ft long, and 75 ft wide.

Stack parameters used in the modeling analysis are shown in Table 2-3. To be conservative, the lowest stack gas flow rate, velocity, and temperature shown for biomass were used to result in the highest predicted impacts.

#### **4.3 MODELING RESULTS**

The maximum predicted concentrations for the 8-hour, 24-hour, and annual averaging periods for each HAP and air toxic pollutant are presented in Table 4-3. Table 4-3 indicates the maximum short-term and annual emission rates and the maximum impacts for each compound emitted. As shown, all compounds have maximum impacts that are below the FARC for the 8-hour, 24-hour, and annual averaging times, respectively.

Table 4-1. Major Features of the ISCST3 Model

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ISCST3 Model Features

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- Polar or Cartesian coordinate systems for receptor locations
- Rural or one of three urban options which affect wind speed profile exponent, dispersion rates, and mixing height calculations
- Plume rise due to momentum and buoyancy as a function of downwind distance for stack emissions (Briggs, 1969, 1971, 1972, and 1975; Bowers, et al., 1979).
- Procedures suggested by Huber and Snyder (1976); Huber (1977); and Schulman and Scire (1980) for evaluating building wake effects
- Procedures suggested by Briggs (1974) for evaluating stack-tip downwash
- Separation of multiple emission sources
- Consideration of the effects of gravitational settling and dry deposition on ambient particulate concentrations
- Capability of simulating point, line, volume, area, and open pit sources
- Capability to calculate dry and wet deposition, including both gaseous and particulate precipitation scavenging for wet deposition
- Variation of wind speed with height (wind speed-profile exponent law)
- Concentration estimates for 1-hour to annual average times
- Terrain-adjustment procedures for elevated terrain including a terrain truncation algorithm for ISCST3; a built-in algorithm for predicting concentrations in complex terrain
- Consideration of time-dependent exponential decay of pollutants
- The method of Pasquill (1976) to account for buoyancy-induced dispersion
- A regulatory default option to set various model options and parameters to EPA recommended values (see text for regulatory options used)
- Procedure for calm-wind processing including setting wind speeds less than 1 m/s to 1 m/s.

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Note: ISCST3 = Industrial Source Complex Short-Term.

Source: EPA, 1995.

Table 4-2. Property Boundary Receptors Used in the Modeling Analysis

Direction (deg)	Distance (m)	Direction (deg)	Distance (m)
10	3674.	190	2764.
20	3850.	200	2897.
30	4178.	210	3143.
40	3642.	220	3553.
50	3163.	230	4234.
60	4066.	240	5444.
70	3849.	250	7958.
80	3669.	260	9485.
90	3609.	270	9675.
100	3661.	280	9585.
110	3832.	290	9602.
120	4153.	300	7236.
130	4234.	310	5629.
140	3553.	320	4723.
150	3143.	330	4178.
160	2897.	340	3850.
170	2764.	350	3674.
180	2722.	360	3618.

Note: Distances are relative to centroid of cogeneration facility stacks locations.

Table 4-3. Maximum Impacts of HAPs and Air Toxic Pollutants for Okeelanta Power Cogeneration Facility (total 3 boilers)

Pollutant	Emission Rates		Concentrations (µg/m³)						Compound Complies With FARCs?
	Maximum (lb/hr)	Annual (TPY)	8-Hour		24-Hour		Annual		
			Impact	FARC	Impact	FARC	Impact	FARC	
acetaldehyde	1.67	4.49	0.0923	450	0.0709	107	0.0030	0.5	YES
acetone	0.82	2.19	0.0450	17800	0.0345	4238	1.5E-03	NA	YES
acetophenone	0.0079	0.021	0.0004	490	0.0003	117	1.4E-05	100	YES
acrolein	0.139	0.37	0.0077	2.3	0.0059	0.5	2.5E-04	0.02	YES
ammonia	70.6	123.3	3.8932	170	2.9908	41	0.082	100	YES
antimony	0.051	0.031	0.0028	5	0.0022	1.2	2.1E-05	0.3	YES
arsenic	0.36	0.32	0.0196	0.1	0.0151	0.02	0.00021	0.00023	YES
barium	0.11	0.09	0.0060	5	0.0046	1.2	6.0E-05	50	YES
benzene	2.79	7.48	0.1539	30	0.1182	7	0.0050	0.12	YES
benzo (a) anthracene (POM)	0.0016	0.0043	8.8E-05	NA	6.8E-05	NA	2.9E-06	0.0011	YES
benzo (a) pyrene	7.6E-05	2.0E-04	4.2E-06	NA	3.2E-06	NA	1.3E-07	0.0003	YES
beryllium	0.0087	5.2E-03	4.8E-04	0.02	3.7E-04	0.005	3.5E-06	0.00042	YES
bromine	1.16	0.91	0.0641	6.6	0.0492	1.6	6.0E-04	NA	YES
cadmium	0.0049	0.0083	2.7E-04	0.02	2.1E-04	0.005	5.5E-06	0.00056	YES
carbon disulfide	0.28	0.75	0.0154	310	0.0118	74	5.0E-04	200	YES
carbon tetrachloride	0.013	0.035	0.0007	310	0.0005	74	2.3E-05	0.067	YES
chlorine	1.97	5.29	0.1089	15	0.0836	3.6	0.0035	0.4	YES
chloroform	0.10	0.27	0.0056	490	0.0043	117	1.8E-04	0.043	YES
chromium	0.34	0.32	0.0186	5	0.0143	1.2	2.1E-04	1000	YES
chromium +6	0.067	0.064	0.0037	0.5	0.0029	0.1	4.3E-05	0.00083	YES
chrysene	0.076	0.20	0.0042	2	0.0032	0.5	1.3E-04	NA	YES
cobalt	0.330	0.37	0.0182	0.5	0.0140	0.1	2.5E-04	NA	YES
copper	0.79	1.04	0.0437	10	0.0336	2.4	6.9E-04	NA	YES
cumene	0.039	0.10	0.0021	2460	0.0016	586	6.9E-05	1	YES
dibutyl phthalate	0.124	0.33	0.0069	50	0.0053	12	2.2E-04	100	YES
ethylbenzene	0.008	0.022	0.0005	4340	0.0004	1033	1.5E-05	1000	YES
fluorine (as fluorides)	35.28	21.23	1.9466	25	1.4954	6	0.014	NA	YES
formaldehyde	2.79	7.48	0.1539	3.7	0.1182	0.9	0.0050	0.077	YES
hexane	1.18	3.16	0.0651	1760	0.0500	419	0.0021	200	YES
hydrogen chloride	116.1	113.1	6.4075	70	4.9223	17	0.0752	7	YES
indium	0.27	0.73	0.0150	1	0.0115	0.2	4.9E-04	NA	YES
iodine	0.0050	0.012	0.0003	10	0.0002	2.4	8.0E-06	NA	YES
isopropanol	19.73	52.90	1.0886	9800	0.8363	2333	3.5E-02	NA	YES
lead	0.343	0.454	0.0189	0.5	0.0145	0.1	3.0E-04	0.09	YES
manganese	0.77	1.18	0.0422	50	0.0324	12	7.8E-04	0.05	YES
mercury	0.014	0.030	0.0008	0.5	0.0006	0.1	2.0E-05	0.3	YES
methanol	3.22	8.63	0.1775	2600	0.1364	619	5.7E-03	NA	YES
methyl ethyl ketone	0.026	0.069	0.0014	5900	0.0011	1405	4.6E-05	1000	YES
methyl isobutyl ketone	1.84	4.95	0.1018	2050	0.0782	488	3.3E-03	NA	YES
methylene chloride	3.22	8.63	0.1775	1740	0.1364	414	5.7E-03	2	YES
molybdenum	0.05	0.053	0.0025	50	0.0019	12	3.5E-05	NA	YES
m&p xylene	0.017	0.045	0.0009	4340	0.0007	1033	3.0E-05	80	YES
naphthalene	1.27	3.39	0.0698	500	0.0536	119	2.3E-03	NA	YES
nickel	0.047	0.073	0.0026	10	0.0020	2.4	4.9E-05	0.0042	YES
o xylene	0.006	0.015	0.0003	4340	0.0002	1033	9.9E-06	80	YES
PAH	1.3E-06	3.4E-06	7.0E-08	2	5.4E-08	0.5	2.3E-09	NA	YES
phenols	0.088	0.24	0.0049	190	0.0037	45	1.6E-04	30	YES
phosphorus	1.26	0.77	0.0698	1	0.0536	0.2	5.1E-04	NA	YES
pom (polycyclic organic matter)	0.012	0.013	0.0007	NA	0.0005	NA	8.6E-06	NA	YES
selenium	0.079	0.10	0.0043	2	0.0033	0.5	6.6E-05	NA	YES
silver	0.0030	0.0081	1.7E-04	0.1	1.3E-04	0.02	5.4E-06	NA	YES
styrene	0.032	0.086	0.0018	2130	0.0014	507	5.7E-05	1000	YES
sulfuric acid mist	52.9	34.6	2.92	10	2.24	2.4	2.3E-02	NA	YES
tin	0.013	0.0080	7.2E-04	1	5.5E-04	0.2	5.3E-06	NA	YES
2,3,7,8 -TCDD (dioxin)	1.3E-08	3.5E-08	7.1E-10	NA	5.5E-10	NA	2.3E-11	2.2E-08	YES
toluene	0.19	0.52	0.0107	1880	0.0082	448	3.4E-04	400	YES
1, 1, 1 trichloroethane	0.36	0.98	0.0201	19000	0.015	4524	6.5E-04	NA	YES
trichloroethylene	0.016	0.044	0.0009	2690	6.9E-04	640	2.9E-05	0.77	YES
tungsten	2.8E-05	7.4E-05	1.53E-06	50	1.2E-06	12	4.9E-08	NA	YES
uranium	2.6E-05	3.0E-05	1.5E-06	0.5	1.1E-06	0.1	2.0E-08	NA	YES
vanadium	8.2E-04	0.0014	4.5E-05	0.5	3.5E-05	0.1	9.3E-07	20	YES
yttrium	1.4E-04	3.8E-04	7.8E-06	10	6.0E-06	2.4	2.5E-07	NA	YES
zinc	10.48	13.23	0.58	10	0.44	2.4	8.8E-03	NA	YES
zirconium	8.8E-04	0.0024	4.9E-05	50	3.7E-05	12	1.6E-06	NA	YES

Notes: FARC= Florida Ambient Reference Concentrations

Maximum concentrations determined with ISCST3 model and West Palm Beach meteorological data for 1982 to 1986.

Highest predicted concentrations (µg/m³) for a generic emission rate of 10 g/s (79.365 lb/hr) are :

8-hour= 4.379  
24-hour= 3.364  
Annual= 0.2311

**ATTACHMENT A**



Table A-1. Maximum Fuel Usage and Heat Input Rates per Boiler, Okeelanta Power Limited Partnership

Fuel	Heat Input	Heat Transfer Efficiency (%)	Heat Output	Fuel Firing Rate
<b>Maximum Short-Term (per boiler)</b>				
	(MMBtu/hr)		(MMBtu/hr)	
Biomass - Bagasse	715	68	486	168,235 lb/hr <sup>a</sup>
- Wood Waste	715	68	486	130,000 lb/hr <sup>b</sup>
No. 2 Fuel Oil	490	85	417	3,551 gal/hr
Coal	490	85	417	40,833 lb/hr
Tire-Derived Fuel	340	68	231	21,935 lb/hr
<b>Annual Average (per boiler)</b>				
	(Btu/yr)		(Btu/yr)	
<b><u>NORMAL OPERATIONS (100% BIOMASS)</u></b>				
Biomass	6.263E+12	68	4.259E+12	736,871 TPY <sup>a</sup>
No. 2 Fuel Oil	0	85	0	0 gal/yr
Coal	0	85	0	0 TPY
Tire-Derived Fuel	0	68	0	0 TPY
TOTAL	<u>6.263E+12</u>		<u>4.259E+12</u>	
<b><u>24.9% OIL FIRING</u></b>				
Biomass	4.428E+12	68	3.011E+12	520,941 TPY
No. 2 Fuel Oil	1.468E+12	85	1.248E+12	10,638,685 gal/yr
Coal	0	85	0	0 TPY
Tire-Derived Fuel	0	68	0	0 TPY
TOTAL	<u>5.896E+12</u>		<u>4.259E+12</u>	
<b><u>24.9% COAL FIRING</u></b>				
Biomass	4.428E+12	68	3.011E+12	520,941 TPY
No. 2 Fuel Oil	0	85	0	0 gal/yr
Coal	1.468E+12	85	1.248E+12	61,172 TPY
Tire-Derived Fuel	0	68	0	0 TPY
TOTAL	<u>5.896E+12</u>		<u>4.259E+12</u>	
<b><u>40.2% TIRE-DERIVED FUEL</u></b>				
Biomass	3.744E+12	68	2.546E+12	340,364 TPY <sup>b</sup>
No. 2 Fuel Oil	0	85	0	0 gal/yr
Coal	0	85	0	0 TPY
Tire-Derived Fuel	2.519E+12	68	1.713E+12	81,246 TPY
TOTAL	<u>6.263E+12</u>		<u>4.259E+12</u>	

a Based on bagasse firing.

b Based on wood waste firing.

Notes:

40 CFR 60, Subpart Da, limits fossil-fuel firing to less than 25% for each boiler (heat input basis).

40 CFR 60, Subpart Ea, limits municipal solid waste firing to 30% or less for each boiler (weight basis).

Total heat output required = 4.259E+12 Btu/yr per boiler.

Fuels may be burned in combination, not to exceed total heat outputs.

Based on fuel heating values as follows:

Bagasse - 4,250 Btu/lb

Wood Waste - 5,500 Btu/lb

No. 2 Fuel Oil - 138,000 Btu/gal

Coal - 12,000 Btu/lb

Tire-derived fuel - 15,500 Btu/lb

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	0.2	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	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.



# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

March 5, 1997

## CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. David A. Buff, P.E.  
Principal Engineer  
Golder Associates, Inc.  
6241 NW 23rd Street, Suite 500  
Gainesville, Florida 32653-1500

Dear Mr. Buff:

RE: Okeelanta Power L.P.  
Permit No. AC50-219413 (PSD-FL-196)

This is in response to your January 17 and Okeelanta Power L.P. February 14 letters asking for clarification of or amendments to the referenced permit.

The burning of tire derived fuel (TDF) is authorized for testing purposes only. Because of the common fuel feed system, the Department will allow the burning of a blend of TDF in all boilers at the facility during the test on one of the boilers.

The Department has decided not to amend Specific Condition 4 of the permit. During the test, the ash should be analyzed for organics and PCDD/PCDF. The referenced air permit requires this analysis during the test burn only. Ash analysis requirements may be required in future permits issued by the Division of Waste Management.

Rule applicability for a permit to authorize the TDF blend to be burned on a regular basis will be based on the change from the estimated emissions in the original applications for this facility, including the emission of any new pollutant. If there is no increase in the emissions or new air pollutant emitted in significant quantities, the amendment to authorize routine burning of a blended fuel will not be subject to PSD regulations.

The Department wants the weekly fuel analysis required by Specific Condition No. 12 to continue at least through the TDF test burn. Once that data is available, we will consider reducing the frequency of analyze to a monthly basis. We advise you to resubmit the request to reduce the frequency of analysis with all analytical results collect to date at that time.

Mr. David A. Buff  
March 5, 1997  
Page Two

If you have any questions on these issues, please contact Willard Hanks at the Bureau of Air Regulation (904)488-1344 or Kathy Anderson at the Division of Waste Management (904) 488-0300.

Sincerely,



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

AAL/wh/t

cc: Dennis Space, Okeelanta Power L.P.  
Ajaya Satyal, PBCHD  
Kathy Anderson, DWM

Fold at line over top of envelope to

<p>Is your RETURN ADDRESS completed on the reverse side?</p>	<p><b>SENDER:</b></p> <ul style="list-style-type: none"> <li>■ Complete items 1 and/or 2 for additional services.</li> <li>■ Complete items 3, 4a, and 4b.</li> <li>■ Print your name and address on the reverse of this form so that we can return this card to you.</li> <li>■ Attach this form to the front of the mailpiece, or on the back if space does not permit.</li> <li>■ Write "Return Receipt Requested" on the mailpiece below the article number.</li> <li>■ The Return Receipt will show to whom the article was delivered and the date delivered.</li> </ul>	<p>I also wish to receive the following services (for an extra fee):</p> <p>1. <input type="checkbox"/> Addressee's Address</p> <p>2. <input checked="" type="checkbox"/> Restricted Delivery</p> <p>Consult postmaster for fee.</p>
<p>3. Article Addressed to:</p> <p>David A. Buff, PE          Golder Assoc.          6241 NW 23rd St, Suite 500          Gainesville, FL 32653-1580</p>		<p>4a. Article Number</p> <p>P 265 659 184</p>
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PS Form 3811, December 1994

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PS Form 3800, April 1995

**Wood-Waste and Ash  
Inspection and Testing Plan**

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**Okeelanta Generating Plant**

---

**March 1995**

**Prepared by  
Okeelanta Power L. P.**

Okeelanta Generating Plant  
6 Miles South of South Bay on U.S. Highway 27  
South Bay, Florida 33493

Submitted to  
Florida Department of Environmental Protection  
Bureau of Air Regulation

**Okeelanta Power  
Limited Partnership**

March 20, 1995

Mr. Bruce Mitchell  
Florida Department of Environmental Protection  
Bureau of Air Quality  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

RE: Okeelanta Generating Plant  
Permit #AC50-219413 PSD-FL-196

Dear Mr. Mitchell:

In accordance with Specific Condition #12 in the referenced permit, please find enclosed a copy of the Okeelanta Generating Plant: Wood-Waste and Ash Inspection and Testing Plan for your review and approval. The Okeelanta facility is currently under construction and is scheduled to begin commercial operation in October 1995.

Please direct all correspondence with regards to your review and approval of the plan to:

Ms. Michelle Griffin  
Environmental Specialist  
Okeelanta Power Limited Partnership  
7500 Old Georgetown Road  
Bethesda, MD 20814-6161

If you require any additional information please contact me at (301) 718-6766.

Sincerely,



Mark J. Burzinski  
Environmental Representative

Enclosure Wood-Wastes and Ash Inspection and Testing Plan

**Wood-Waste and Ash  
Inspection and Testing Plan**

---

**Okeelanta Generating Plant**

---

**March 1995**

**Prepared by  
Okeelanta Power L. P.**

Okeelanta Generating Plant  
6 Miles South of South Bay on U.S. Highway 27  
South Bay, Florida 33493

Submitted to  
Florida Department of Environmental Protection  
Bureau of Air Regulation



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Bechtel Drawing 22433-M-031-0140-02; "Fuel Handling System Flow Diagram"

Bechtel Drawings 22433-M73-JN-001 and 22433-M73-JM-001; "Fly Ash and Bottom Ash Handling System Flow Diagrams"

## 1.0 INTRODUCTION

The Okeelanta Power, L.P. (OPLP) is constructing a bagasse/wood-waste fired cogeneration plant, known as the Okeelanta Generating Plant (OGP), adjacent to the site of the Okeelanta Sugar Mill. The OGP is located approximately six miles south of the town of South Bay in Palm Beach County, Florida

As a provision of the OGP's Florida Department of Environmental Protection (FDEP) Air Permit (AC50-219413, PSD-FL-196), the plant is required to implement inspection and testing procedures for the wood-waste and other materials delivered to the plant for fuel. The primary function of these procedures is to keep painted and chemically-treated wood, household garbage, toxic or hazardous non-biomass, and non-combustible waste material from being burned at the plant. In addition, the FDEP Air Permit also requires the sampling and analysis of ash from the biomass burned in order to determine the concentration of copper, chromium, and arsenic present. This Wood-Waste and Ash Inspection and Testing Plan describes the implementation of these procedures during operation of the OGP to ensure compliance with the sampling and analysis provisions outlined in the air permit.

The Plan includes a brief description of the OGP and its operations related to wood-waste and ash handling in Sections 2.0 and 3.0. Procedures for inspection, sampling, and analysis of the wood-waste at both the wood-waste supply sites and at the OGP, as well as procedures for ash sampling and analysis are described in Section 4.0. The OGP procedures for recordkeeping of inspections, sampling, and analysis results are provided in Section 5.0. Drawings for the fuel and ash handling systems, showing inspection (wood-waste only) and sampling locations are provided in the appendix.

## 2.0 FACILITY INFORMATION

The Okeelanta Generating Plant (OGP) is a new 74.9 MW (gross) bagasse and wood-waste fired cogeneration plant located in South Bay, Florida, adjacent to the existing Okeelanta Sugar Mill. The plant is designed to supply high and low pressure steam to the Okeelanta Sugar Mill during the grinding season (mid-October to April) while burning bagasse as the primary fuel. During the non-grinding season the OGP is designed to provide low pressure steam while using processed wood-waste as the primary fuel. Steam generation will be accomplished by means of bagasse and wood-waste fired non-reheat boilers. Electrical power generation will be provided by means of an extraction-condensing turbine generator and will be used to meet in-house loads and for sale to Florida Power & Light.

The major components of the plant include:

- three balanced draft bagasse/wood-fired boilers with membrane wall construction, superheater, and economizer (boilers are also capable of future coal firing up to 40% of rated heat input)
- three electrostatic precipitators (one/boiler) with integral stacks
- an extraction-condensing turbine generator
- material storage and handling systems (e.g., wood-waste, bagasse, ash)
- ancillary plant equipment.

### 3.0 PROCESS DESCRIPTIONS

The following sub-sections describe the OGP wood-waste and ash handling systems from a "process flow" standpoint. Although the OGP also includes a bagasse handling system which operates during the sugar cane grinding season, only the wood-waste and ash are subject to the sampling and analysis requirements of the OGP air permit. Therefore, only these systems are described in this plan.

#### 3.1 Wood-Waste Handling System

The following description of the Wood-Waste Handling System is depicted schematically on the wood-waste/bagasse flow diagram (Bechtel Drawing #22433-M-031-0140-02) contained in the appendix.

Wood-waste will be delivered to the OGP by 25-ton trucks (typical) at an approximate design rate of 1,200 tons per day, with deliveries anticipated 12 hours per day, 6 days per week. The trucks will be unloaded at the OGP utilizing two hydraulically operated truck dumpers. A third unloading area will also be provided to accommodate any self-unloading trucks that may be available for fuel transportation.

While unloading from the trucks, the wood-waste will be discharged into receiving hoppers equipped with live bottom chain conveyors which will transfer the wood material to the 48" Unloading Conveyor. The Unloading Conveyor, which is equipped with a belt scale and magnetic separator, will convey the wood-waste to the Screen and Hog Tower at a design rate of up to 300 tons per hour (tph).

The Screen and Hog Tower is an open facility consisting of a disc screen and a motor-driven, size-reducing hog. The wood-waste will be discharged onto the disc screen which acts to separate material sized less than 3" from any oversized material. The oversized material (i.e., >3") is discharged to the Hog which reduces the wood pieces to the less than 3" size, suitable for feeding into the boilers.

The sized wood-waste is transferred from the Screen and Hog Tower via the Storage Conveyor to the Radial Stacker Conveyor which deposits the sized wood-waste at the wood storage area.

Sized wood-waste is reclaimed from the wood pile at a design rate of up to 175 tph through the use of two under-pile chain reclaimers. The reclaimers transfer the sized wood-waste to the Boiler Feed Conveyor which deposits the fuel on to one of two chain distribution conveyors for apportionment into the boilers.

## 3.2 Ash Handling Systems

The ash handling systems at the OGP comprises equipment from two distinct systems, (1) the handling of bottom ash from the boilers, and (2) the handling of fly ash collected in the electrostatic precipitators (ESP), the dust collector hoppers and the air heater hoppers. Therefore, the following two sub-sections provide separate discussions of both the equipment related to bottom ash handling and the equipment for fly ash handling. A process flow diagram of these ash handling systems is also provided in the appendix to this plan (Bechtel Drawings #22433 M73-JN-001 and #22433 M73-JM-001).

### 3.2.1 Bottom Ash Handling

Bottom ash will be continuously discharged from the boilers into three water-submerged drag chain conveyors. Each conveyor will consist of a wet compartment and a dry lower compartment. The upper compartment will be a water-tight steel trough designed to contain the water required for quenching and cooling the bottom ash to 140° F. The trough will be sized to accommodate up to two hours of bottom ash generated from the combustion of wood-waste (or bagasse).

The dewatered ash from the dewatering inclined ramp of the chain conveyor will be discharged into an 8 tph transfer conveyor from each individual boiler which will then transfer the dewatered ash into a 25-tph collecting conveyor. The collecting conveyor will unload the ash into a three-sided bunker, sized to a capacity of approximately 1-day of normal ash generation. Mobile equipment will be used to reclaim and load the stored ash into trucks for disposal off site.

### 3.2.2 Fly Ash Handling

Fly ash at the OGP will include ash collected in the air heater hoppers, dust collector hoppers and from the ESP hoppers. The fly ash handling system will encompass the removal and transport of the fly ash from the hoppers to a storage silo using a dry chain conveyor and bucket elevator conveyor system.

The fly ash collected from the air heaters and ESPs will discharge via enclosed chutes to the collecting fly ash chain conveyor. The collecting conveyor transfers the ash to the bucket elevator conveyor, which in turn carries the ash up to the flight chain conveyor. The flight conveyor discharges the fly ash into the top of the ash storage silo. The conveying capacity of this system will be sufficient to remove 24-hours of ash generation in 6 to 8 hours of operation.

The ash storage silo will be sized to accommodate 1,500 tons (approximately 7 days of ash generation) of fly ash. The silo will be a conical-bottom cylinder-type carbon steel structure. Two

twin shaft pug-mill conditioner unloaders, rated at 200 tph each, will discharge the ash into trucks for disposal.

## 4.0 INSPECTION, SAMPLING, AND ANALYSIS PROCEDURES

As stated in Section 1.0, the FDEP Air Permit for the OGP requires that inspection, sampling, and analysis of the wood-waste burned, and sampling and analysis of the ash generated at the plant, be performed to demonstrate that contaminants, principally copper, chromium, arsenic, in the biomass burned in the boilers are minimized.

The specific inspection and sampling procedures to be utilized at each stage of the wood-waste and ash handling systems are provided in the following sub-sections.

### 4.1 Wood-Waste Supply Sites

As stipulated in the OGP fuel supply contracts with the wood-waste suppliers, the delivered wood-waste must meet the following specifications:

- Composed of less than 2% by volume or weight of plastics, rubber, glass, and painted wood.
- Free from chemically treated wood (e.g., chromium, copper, arsenic, creosote, pentachlorophenol) except for incidental amounts not to exceed 2% by volume or weight.

To ensure that wood-waste delivered to the OGP meets these and other specifications, the wood waste suppliers will perform inspection and material segregation operations on each load of feedstock received at their facilities. Although the OGP will obtain wood-waste fuel from several different suppliers with a variety of sources for their unprocessed feedstock, the following description of the inspection and material segregation operations are typical of those operations performed at wood yards supplying the OGP.

The bulk material feedstock at the originating wood yards will first undergo a "gross" material separation by removing the bulk wood-waste from other mixed wastes (e.g., plastics, non-wood debris, scrap metal, concrete/soils) through the use of heavy equipment, magnetic separation, and mechanical screening. Trained personnel will be involved in oversight at this level of material segregation such that the majority of prohibited wastes are removed from the bulk wood-waste. After this operation, the wood-waste will be further visually inspected and manually sorted (when applicable) to remove chemically-treated and painted wood, smaller mixed wastes, and other non-combustible materials. The "sorted" wood-waste is then mechanically sized and screened (to actual contract specifications) prior to delivery to the OGP site.

As a quality assurance measure, each fuel supplier's operations will be reviewed at least once monthly through an unannounced site inspection by OGP personnel. These visits will allow OGP to ensure that the supplier's inspection and segregation efforts remain at acceptable levels.

## 4.2 OGP Wood Yard Storage

In accordance with the FDEP Air Permit, analysis of wood-waste to be burned at the plant will be conducted on a weekly basis for the first year of operation at the OGP. Thereafter, upon approval of FDEP, sampling and analysis may be reduced to a monthly basis.

Upon delivery of the wood-waste to the OGP, each load will be visually inspected by the Fuel/Ash Handler stationed at the truck receiving dumping area. Loads which contain unacceptable, visible amounts (i.e., greater than fuel contract specified limits) of chemically treated and/or painted wood and other prohibited mixed wastes will be rejected by the inspector and prevented from discharging at the OGP fuel storage area. If the delivered load is acceptable based on the visual inspection, the truck will be staged for unloading.

Sampling of the wood-waste will occur at the OGP fuel storage yard. Representative samples will be taken from specified sections of the wood-waste pile which represent and include the fuel to be reclaimed and burned during the following week of plant operation. These "weekly" sections, and their schedule for reclamation and burning, will be identified and approved by the Plant Manager (or designee) prior to samples being taken.

A total of three grab samples will be taken from different areas and depths at the specified "weekly" section of the fuel pile. Each grab sample will be approximately one pound and will be stored in sealable plastic (ziplock-type) bags.

Prior to releasing the samples for outside lab analysis, a "composite sample" will be produced by combining the three individual grab samples into a homogeneous mixture and cutting out a single sample from the mixture as specified by the lab performing the analyses. This "composite sample" will represent the composition of the wood-waste to be burned during the following week of plant operations. The remaining portion of the homogenous mixture will be retained onsite for use as a control sample to verify lab test results, if necessary.

Laboratory results on the samples will typically be available to the OGP Fuels Manager within 2-3 days of receipt of the sample at the lab. Any results which indicate contamination of the wood-waste in the "weekly" section of the pile by copper, chromium, and/or arsenic in concentrations above the air permit-specified limits (i.e., 62.8 ppm copper, 83.3 ppm chromium, and 70.7 ppm arsenic) will be immediately investigated by the onsite Environmental, Health and Safety Representative (EH&S). The "weekly" section of the pile tested will not be burned until additional testing of the control sample is undertaken to verify the original test results. If necessary, additional sampling/testing will be performed to determine the extent of contaminated wood-waste in the "weekly" section of the fuel pile.



### 4.3 Bottom Ash/Fly Ash

In accordance with the FDEP Air Permit, analysis of the ash generated at the OGP will be conducted on a monthly basis for the first year of operation. Results from the analyses will be used to confirm that the air permit-specified limits on the concentration of copper, chromium, and arsenic in the biomass combusted at the OGP are being met. Ash samples to be analyzed will be a mixed product of both bottom ash and fly ash collected from the three boilers and the air heater, dust collector, and ESP hoppers, respectively.

Grab samples of the bottom ash will be obtained weekly by the Plant Chemist as material is loaded from the storage bunker to trucks for offsite disposal. Fly ash grab samples will be obtained (also by the Plant Chemist) weekly from the transfer point between the collecting fly ash chain conveyor and the bucket elevator conveyor, as ash is loaded into the silo. The individual sample size for the bottom ash and fly ash grab samples will be approximately one pound each.

Prior to releasing the ash samples for outside lab analysis, a "representative monthly ash sample" for the facility will be produced by combining the individual weekly bottom and fly ash samples (approximately 8, 1 lb samples per month) into a homogeneous composite ash sample. From this composite sample, a single ash sample representing the ash from the biomass burned during that month will be selected for lab analysis of the copper, chromium and arsenic concentrations. A portion of the remaining homogeneous composite ash sample will be retained on site as a control sample for verification of lab test results, if necessary.

As stated in the air permit, the monthly ash samples will be analyzed for copper, chromium, and arsenic in accordance with appropriate analytical procedures per 40 CFR 261, Appendix III, described in SW-846, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*. Laboratory results on the sample will typically be available to the OGP Fuels Manager within 2-3 days after receipt of the sample at the lab.

Any results on the representative monthly composite ash sample which indicate the burning of wood-waste with concentrations of copper, chromium and/or arsenic above of the air permit limits will be investigated by the EH&S Representative. Re-testing of the control ash sample will be performed to verify the original lab test results. Comparison of the ash sample results with the corresponding fuel test results will also be performed to ensure that existing material segregation and sampling procedures for the wood-waste provide for an accurate representation of the composition of the wood-waste burned at the facility.

## 5.0 RECORDKEEPING

As required by the OGP air permit, results from the weekly wood-waste and monthly ash analyses will be included in the Stack Monitoring Reports submitted quarterly to FDEP's South and Southeast district Offices and the Palm Beach County Health Unit.

In addition, records on the various wood-waste inspections and wood-waste and ash sampling and analysis procedures outlined in this Plan will be maintained at the OGP for review on an as-requested basis by FDEP. The records will typically include:

- Fuel delivery information (e.g., supplier, time/date of delivery, type of material, delivery size)
- Written inspection reports (stating findings) of unannounced site visits to wood-waste suppliers to determine adequacy of their material segregation operations
- Wood-waste and ash sampling and analysis information (e.g., time/date of sampling, locations selected from the "weekly" sections, any atypical conditions, labs utilized, sample results).

These records may also be used by OGP personnel in investigating potential non-compliance events and verifying fuel and ash test results.

**APPENDIX**



FACSIMILE COVER SHEET

RECEIVED

DATE: 11-29-96

DEC 2 1996

TO: Willard Hanks

BUREAU OF AIR REGULATION

ORGANIZATION: Florida DEP

FAX NUMBER: 904-922-6979

TELEPHONE NUMBER: 904-488-7730

FROM: David Buff

OFFICE:  Gainesville  
 Washington D.C.

Tampa  
 Jacksonville

Boca Raton

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Gainesville, Florida, 32653-1500  
(352) 336-5600/FAX (352) 336-6603

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Tampa, FL 33607  
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7785 Baymeadows Way, Suite 105  
Jacksonville, FL 32256  
(904) 739-5600/FAX (904) 739-7777

## MEMORANDUM

TO: Willard Hanks, FDEP

FROM: David Buff, KBN/Golder *QAB*

DATE: November 26, 1996

RE: TDF Trial Burn Permit; OkPLP; OsPLP

---

Willard - I have reviewed draft trial burn permit, and have received comments from James Meriwether of OkPLP. The following comments are offered for your consideration.

Cover letter, 2nd para. - the wording concerning the time period for testing should read the same as Specific Condition (SC) 2: "for a period not to exceed 60 calendar days, and within 90 days, from the first day TDF is burned in the boiler."

SC 2 - Reword as "The maximum TDF content of the fuel shall not exceed 25 percent by weight. Performance testing shall be conducted within 60 calendar days..."

SC 3 - This condition should be clear that TDF firing should be compared to limits for coal in the permit: "Stack emissions due to TDF firing shall not exceed any limit for coal burning in the construction permit..."

SC 4 - Does the Department want total metals analysis or TCLP analysis on the bottom ash and fly ash? SC 5 would indicate that a total metals analysis is necessary. Is TCLP required as well?

SC 6 - This condition should also refer to Osceola cogeneration plant, in case this plant is tested - 23,871 lb/hr or 25 percent by weight of the total feed rate.

SC 11 - Please note that, depending on when actual TDF testing is conducted, the July 1, 1997 deadline may need to be extended. However, I believe the construction permit is automatically extended until issuance of the Title V permit (assuming such issuance has not occurred prior to July 1, 1997).

SC 13 - The purpose of this request should be stated. Is this to determine if a new PSD permit is required? Would this be based on the changes in allowable emissions due to TDF firing, if any changes are necessary? As long as the current allowable emissions are not exceeded due to TDF firing, then PSD review should not be required.

SC 16 - Reword as "... 60 calendar days.."

Memorandum  
November 26, 1996  
Page 2

**SC 17** - Immediate notification could be subject to interpretation. Suggest allowing 5 days for notification.

**SC 18** - Suggest reword as "...include emissions tests at the maximum practical TDF blend (not to exceed 25 percent by weight)..."

**SC 19** - The pollutants to be tested were already specified in SC 7 and 8. Suggest reword as "A test protocol, specifying the pollutants to be tested and the sampling and analysis methods, including fuel and ash, shall be submitted to the Department and approved prior to commencement of testing. The protocol..."

**Ending Sentence** - This sentence should also refer to Permit No. PSD-FL-197C in the event that testing is performed at Osceola Power.

**Public Notice** - In the first sentence of the first paragraph, revise to state "...with bagasse and/or wood wastes..."

Please call me if you want to discuss any of these suggestions.

cc: File (2)



# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

August 16, 1996

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 Limited Partnership  
Tire Derived Fuel Permit Amendment  
Permit File No. AC50-219413, PSD-FL-196A

Dear Mr. Space:

The Department has received the responses to our incompleteness letter for incorporating the use of Tire Derived Fuel (TDF) as a supplemental fuel at Okeelanta Power in Palm Beach County. Based on our review of the responses, we have determined that additional information is needed in order to continue processing this application package. Please submit the information requested below to the Department's Bureau of Air Regulation:

1. Attached are concerns raised by the Bureau of Solid and Hazardous waste pertaining to air and ash issues. Please respond to their concerns. If there are any questions on these issues, please contact Kathy Anderson at (904) 488-0300.
2. As stated in your response, compliance testing on all three boilers was performed during the month of May 1996. Did the test show compliance with all permit requirements for criteria and non-criteria pollutants? Please submit a summary of the test results.
3. The corrected application pages submitted with the response indicates maximum TDF input for each boiler to be 40.4 percent on a weight basis. The original application stated TDF input to be 25 percent on a weight and short-term basis. Please explain the discrepancy between the two numbers.

Mr. Dennis Space  
Page Two  
August 16, 1996

The Department will resume processing this application after we receive the requested information. Should you have any questions, please contact Syed Arif at 904-488-1344.

Sincerely,

*Willard Hanks*  
*for*

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

AAAL/sa/t

cc: D. Knowles, SD  
J. Koerner, PBCHU  
K. Anderson, DEP  
J. Harper, EPA  
J. Bunyak, NPS  
D. Buff, KBN



Fold at line over top of envelope to

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- 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:  
 Mr. Dennis Space, Gen. Mgr.  
 Okelanta Power, LP  
 P O Box 8  
 South Bay, FL 33493

4a. Article Number  
 P 339 251 141

4b. Service Type

Registered  Insured

Certified  COD

Express Mail  Return Receipt for Merchandise

7. Date of Delivery  
 8/22/96

5. Signature (Addressee)

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

6. Signature (Agent)

PS Form 3811, December 1991 \*U.S. GPO: 1993-352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

P 339 251 141

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	P O Box 8 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	TDF 8-16-96 PSD-FL-196A

PS Form 3800, April 1995

# Memorandum

# Florida Department of Environmental Protection

TO: Syed Arif

FROM: Kathy Anderson, Solid Waste Section *SEA 8/12/96*

DATE: August 12, 1996

SUBJECT: Osceola & Okeelanta Sugar Mill Cogeneration Facility  
Tire Derived Fuel Permit Amendment

I have reviewed the July 17, 1996 response that Okeelanta and Osceola had to your first RAI on Permit Amendment # AC50-269980. The following is a list of questions that I would like to see addressed pertaining to air and ash :

1. The current permit requires that the concentration of heavy metals be measured in the wood fuel prior to incineration and in the ash prior to disposal. Please provide mass balance calculations for heavy metals in the ash and wood fuel. For example, since the average concentration of arsenic is known in the fly ash, back calculate the concentration of arsenic in the wood fuel prior to incineration. How do the calculated numbers compare to the actual concentrations observed in the wood fuel ? Submit summary tables of actual data collected for heavy metals in ash and wood fuel to validate the use of average concentrations numbers used in the mass balance calculations.
2. Compare the calculated concentration of arsenic in the wood fuel with the <3% CCA treated wood by volume assumption used in the 5/2/96 Okeelanta submittal (see Table 2-11). Explain any significant differences.
3. Compare the calculated concentration of arsenic in the wood fuel with the <2.4% CCA treated wood by volume assumption used in the 4/18/95 Osceola submittal (see Table 2-9) ?
4. The TDF data presented is for TDF fuel only, what are that anticipated concentrations of heavy metals in the wood fuel combined with TDF ? What are the anticipated concentrations of heavy metals in the ash ? Please present mass balance calculations supporting the anticipated concentrations of heavy metals.

# MEMORANDUM

Page Two

August 8, 1996

I have many more questions pertaining to ash that will be dealt with in the solid waste tire permit which is currently being processed in South District, but I felt like these questions pertained to air permit conditions and could be addressed through your RAI.

These question may have been addressed in the original application, if so please fax me a copy of the information. Additionally, please send me a copy of the portion of the facility's air permit that addresses the wood waste and TDF fuel being received and incinerated for each facility and the current ash handling requirements, i.e. wood waste sampling & storage requirements.

Fold at line over top of envelope to

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- 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:  
 Mr. Dennis Space, Gen. Mgr.  
 Okelanta Power, LP  
 P O Box 8  
 South Bay, FL 33493

4a. Article Number  
 P 339 251 141

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

7. Date of Delivery  
 8/22/96

5. Signature (Addressee)

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

6. Signature (Agent)

Thank you for using Return Receipt Service.

P 339 251 141

US Postal Service

**Receipt for Certified Mail**

No Insurance Coverage Provided.

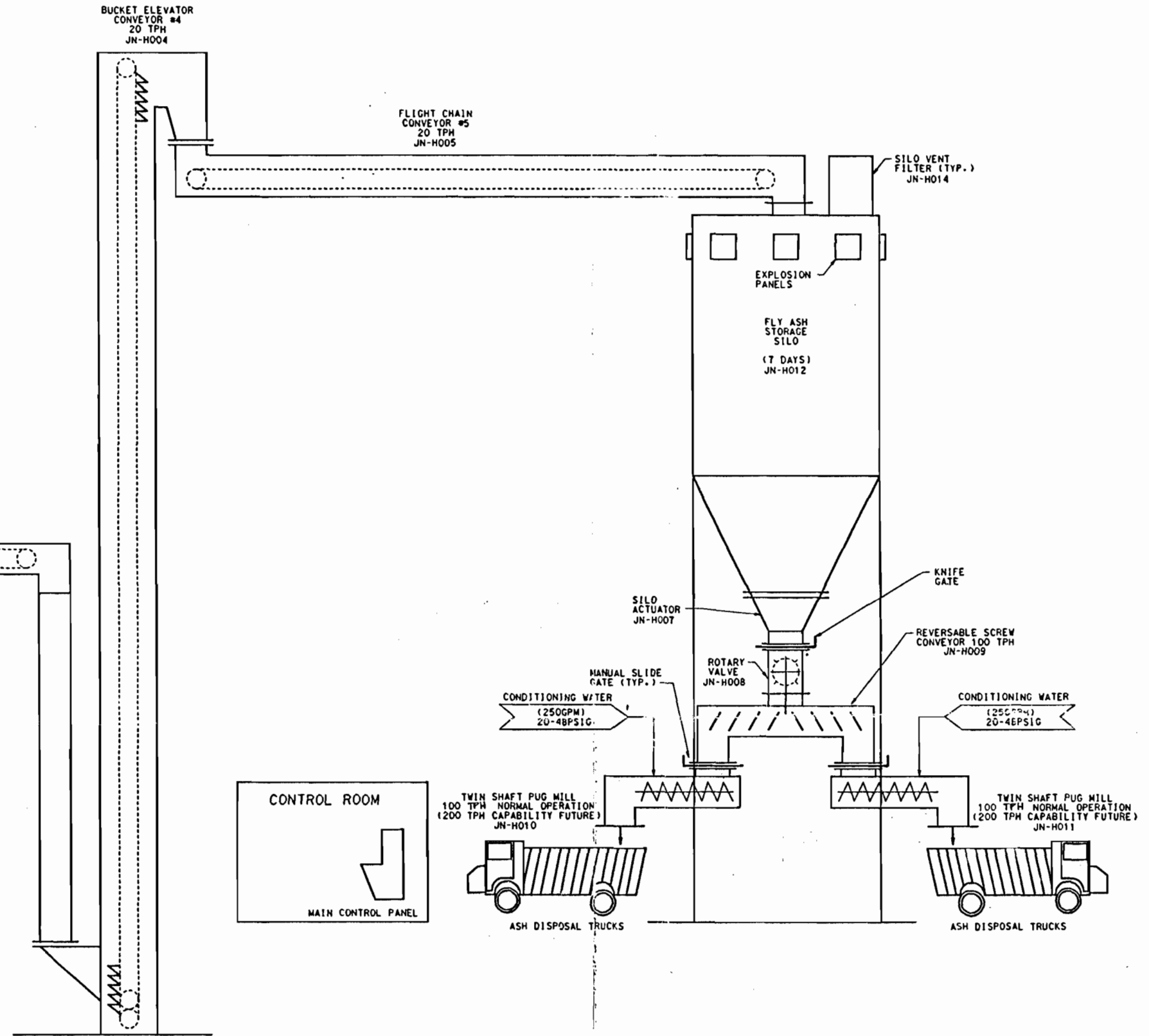
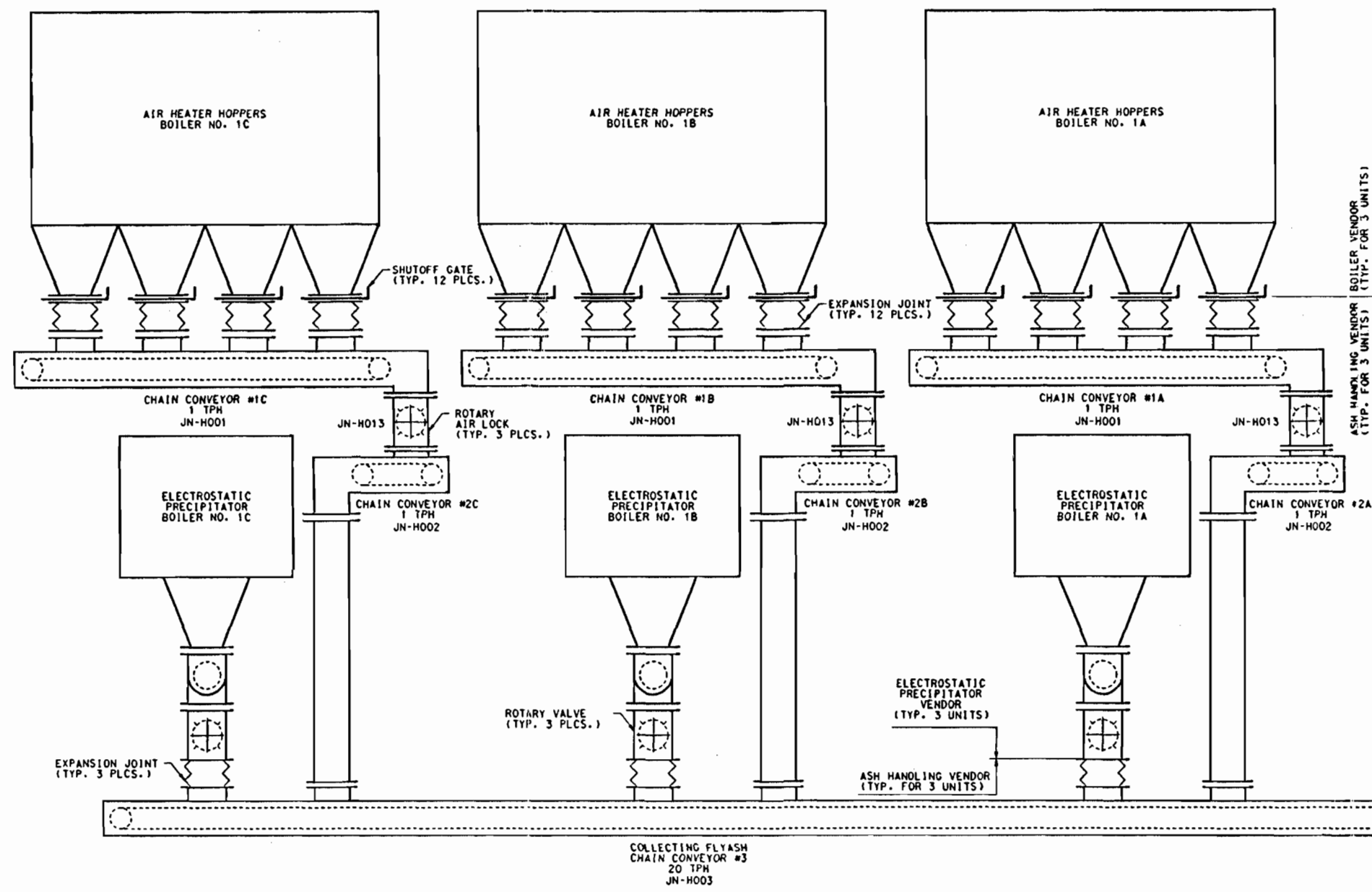
Do not use for International Mail (See reverse)

Send to	Dennis Space
Street & Number	Okelanta Power
Post Office, State, & ZIP Code	P O Box 8 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	TDF 8-16-96 PSD-FL-196A

PS Form 3800, April 1995



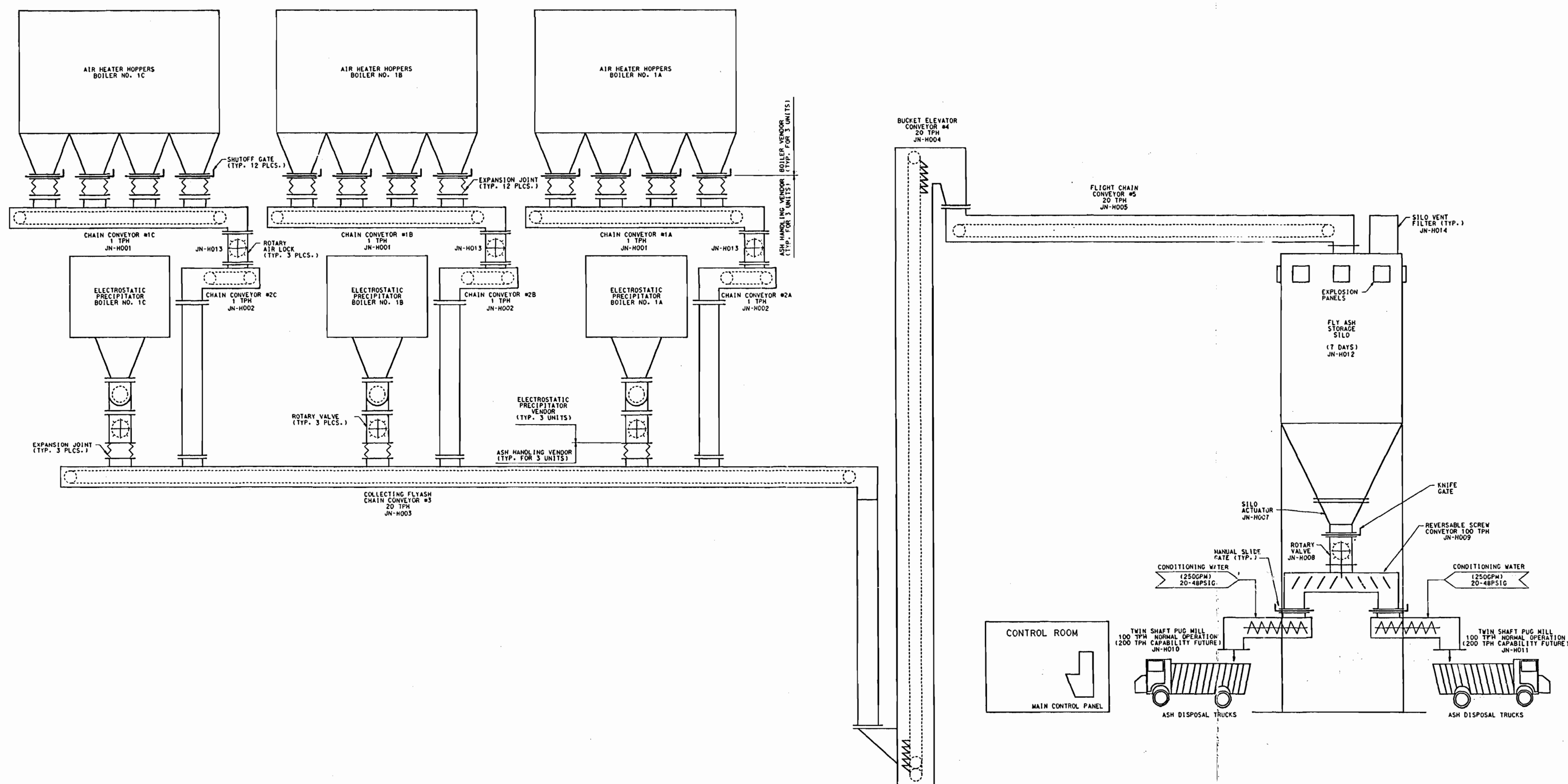
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FLY ASH HANDLING SYSTEM FLOW DIAGRAM					
JOB NO.	DRAWING NO.	REV.			
22433	M73-JN-001	0			

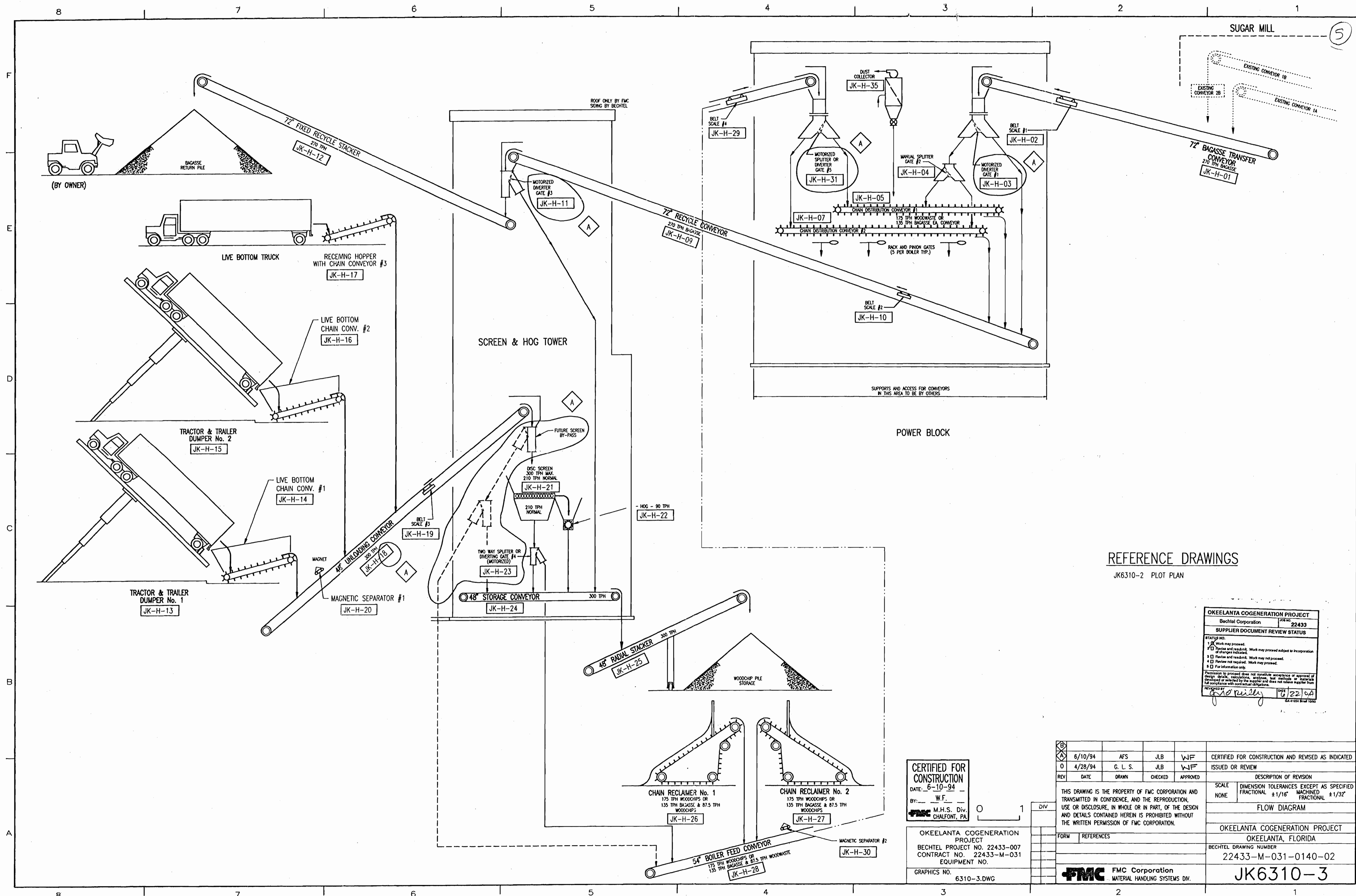


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<b>BECHTEL</b> GAITHERSBURG, MARYLAND																				
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<b>FLY ASH HANDLING SYSTEM FLOW DIAGRAM</b>																				
JOB NO.	DRAWING NO.	REV.																		
22433	M73-JN-001	0																		





**REFERENCE DRAWINGS**

JK6310-2 PLOT PLAN

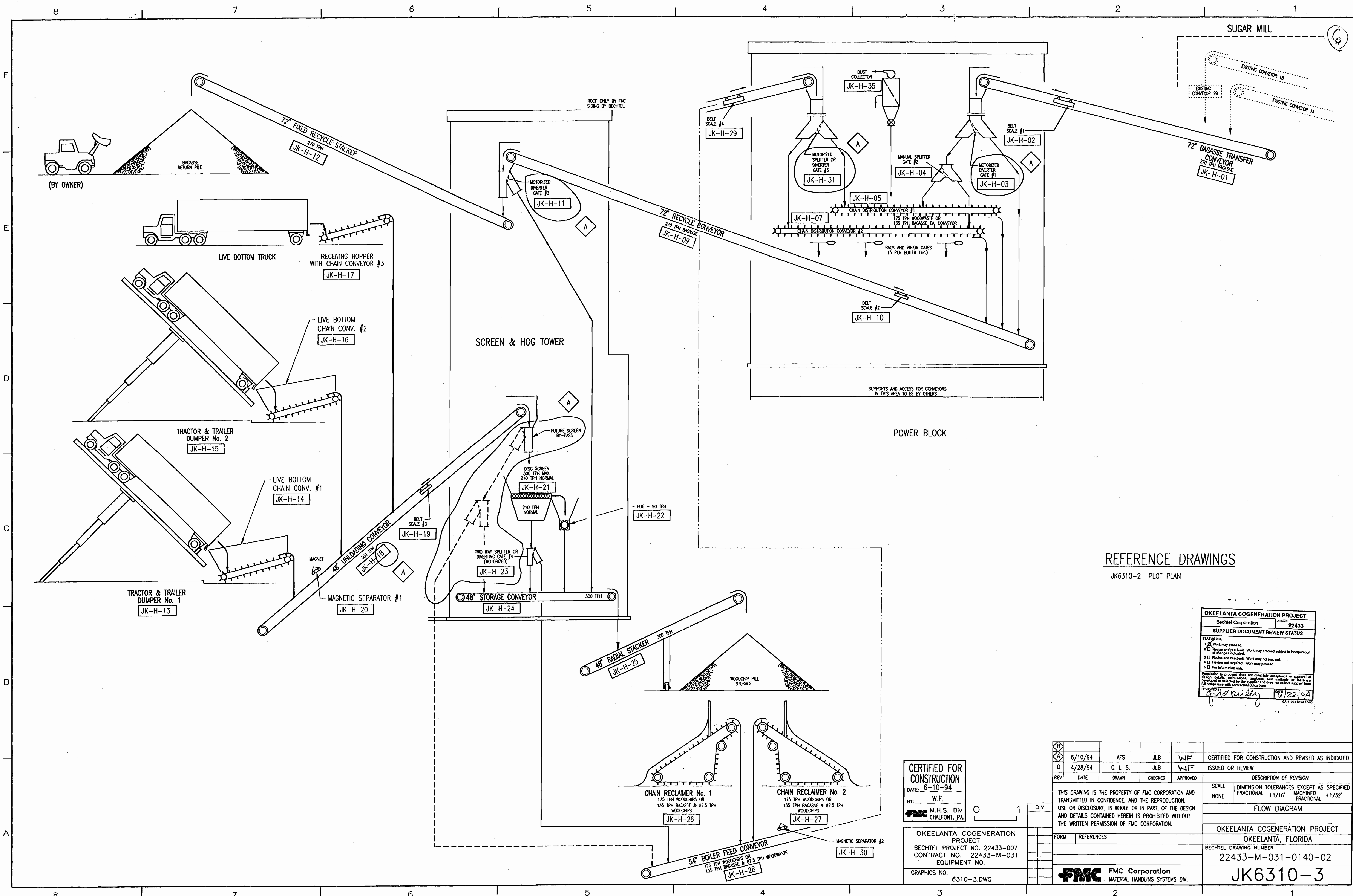
OKEELANTA COGENERATION PROJECT	
Bechtel Corporation	22433
SUPPLIER DOCUMENT REVIEW STATUS	
#1/11/94 NO. <input type="checkbox"/> JK Work may proceed. <input checked="" type="checkbox"/> JK Review and readback. Work may proceed subject to incorporation of changes indicated. <input type="checkbox"/> JK Review and readback. Work may not proceed. <input type="checkbox"/> JK Review not required. Work may proceed. <input type="checkbox"/> JK For information only.	
Permission to proceed does not constitute acceptance or approval of design, methods, calculations, analysis, test methods or materials developed or selected by the supplier and does not release supplier from full compliance with contractual obligations.	
Reviewed by: <i>W.F. Riley</i>	Date: 6/22/94

**CERTIFIED FOR CONSTRUCTION**  
 DATE: 6-10-94  
 BY: W.F.  
 M.H.S. Div. CHALFONT, PA.

OKEELANTA COGENERATION PROJECT  
 BECHTEL PROJECT NO. 22433-007  
 CONTRACT NO. 22433-M-031  
 EQUIPMENT NO.  
 GRAPHICS NO. 6310-3.DWG

REV	DATE	DRAWN	CHECKED	APPROVED	DESCRIPTION OF REVISION
0	6/10/94	AFS	JLB	W.F.	CERTIFIED FOR CONSTRUCTION AND REVISED AS INDICATED
0	4/28/94	G. L. S.	JLB	W.F.	ISSUED FOR REVIEW
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OKEELANTA COGENERATION PROJECT OKEELANTA, FLORIDA BECHTEL DRAWING NUMBER 22433-M-031-0140-02 <b>FMC</b> FMC Corporation MATERIAL HANDLING SYSTEMS DIV.					

**JK6310-3**



REFERENCE DRAWINGS  
JK6310-2 PLOT PLAN

OKEELANTA COGENERATION PROJECT	
Bechtel Corporation	22433
SUPPLIER DOCUMENT REVIEW STATUS	
STATUS NO.	JK
1	Work may proceed.
2	Review and rework. Work may proceed subject to incorporation of changes indicated.
3	Review and rework. Work may not proceed.
4	Review not required. Work may proceed.
5	For information only.
<small>Permitted to proceed does not constitute acceptance or approval of design, details, calculations, analysis, test methods or materials developed or selected by the supplier and does not relieve supplier from full compliance with contractual obligations.</small>	
Prepared by:	<i>John Riley</i> 04/22/94
Checked by:	

**CERTIFIED FOR CONSTRUCTION**  
DATE: 6-10-94  
BY: W.F.  
M.H.S. Div. CHALFONT, PA.

OKEELANTA COGENERATION PROJECT  
BECHTEL PROJECT NO. 22433-007  
CONTRACT NO. 22433-M-031  
EQUIPMENT NO.  
GRAPHICS NO. 6310-3.DWG

REV	DATE	DRAWN	CHECKED	APPROVED	DESCRIPTION OF REVISION
6/10/94	AFS	JLB	WJF		CERTIFIED FOR CONSTRUCTION AND REVISED AS INDICATED
4/28/94	G. L. S.	JLB	WJF		ISSUED OR REVIEW
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FLOW DIAGRAM					
OKEELANTA COGENERATION PROJECT					
OKEELANTA, FLORIDA					
BECHTEL DRAWING NUMBER					
22433-M-031-0140-02					
FMC Corporation					
MATERIAL HANDLING SYSTEMS DIV.					
JK6310-3					

Check Sheet

Company Name: Okeelanta Power LP  
Permit Number: 0990332-006-AC  
PSD Number: PSD-F1-196E  
Permit Engineer: Willard Hanks

**Application:**

- Initial Application
- Incompleteness Letters
- Responses
- Waiver of Department Action
- Department Response
- Other

**Cross References:**

- 
- 
- 

**Intent:**

- Intent to Issue
- Notice of Intent to Issue
- Technical Evaluation
- BACT Determination
- Unsigned Permit

Correspondence with:

- EPA
- Park Services
- Other

Proof of Publication

- Petitions - (Related to extensions, hearings, etc.)
- Waiver of Department Action
- Other

**Final Determination:**

- Final Determination
- Signed Permit
- BACT Determination
- Other

**Post Permit Correspondence:**

- Extensions/Amendments/Modifications
- Other

RECEIVED  
SEP 30 1997  
OPLP

**THE PALM BEACH POST**  
Published Daily and Sunday  
West Palm Beach, Palm Beach County, Florida

**PROOF OF PUBLICATION**

STATE OF FLORIDA  
COUNTY OF PALM BEACH

Before the undersigned authority personally appeared **Chris Bull** who on oath says that she is **Classified Advertising Manager** of The Palm Beach Post, a daily and Sunday newspaper published at West Palm Beach in Palm Beach County, Florida; that the attached copy of advertising, being a Notice in the matter of Intent to issue air construction permit in the --- Court, was published in said newspaper in the issues of September 22, 1997.

Affiant further says that the said The Post is a newspaper published at West Palm Beach, in said Palm Beach County, Florida, and that the said newspaper has heretofore been continuously published in said Palm Beach County, Florida, daily and Sunday and has been entered as second class mail matter at the post office in West Palm Beach, in said Palm Beach County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she/he has neither paid nor promised any person, firm or corporation any discount rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

*Chris Bull*

Sworn to and subscribed before me this 24 day of September A.D. 1997

*[Signature]*

Personally known XX or Produced Identification \_\_\_\_\_  
Type of Identification Produced \_\_\_\_\_

NOTARY PUBLIC  
STATE OF FLORIDA  
Karen McLinton  
Notary Public, State of Florida  
Commission No. CC 591337  
My Commission Exp. 11/15/2000  
1-800-3-NOTARY Fla. Notary Service & Bonding Co.

NO. 396071  
PUBLIC NOTICE OF INTENT  
TO ISSUE AIR CONSTRUCTION  
PERMIT MODIFICATION  
STATE OF FLORIDA  
DEPARTMENT  
OF ENVIRONMENTAL  
PROTECTION  
DRAFT Permit Modification  
No. 099032-006-AC  
(PSD-FL-196)  
Okeelanta Power L.P.  
Cogeneration Facility  
Palm Beach County  
The Department of Environ-  
mental Protection (Depart-  
ment) gives notice of its intent  
to issue an air construction  
permit modification to Okeela-  
nta Power Limited Partner-  
ship for increases in emis-  
sions from the cogeneration  
facility located 6 miles south  
of South Bay, Palm Beach  
County. A Best Available Con-  
trol Technology (BACT) deter-  
mination was not required pur-  
suant to Rules 62-212.400 and  
410, F.A.C., Prevention of Sig-  
nificant Deterioration (PSD).  
The facility consists of three  
multiple fuel boilers which pro-  
duce steam for use at the ad-  
jacent Okeelanta sugar mill  
and up to 74.9 megawatts of  
electricity. The applicant's  
name and address are: Okeela-  
nta Power Limited Partner-  
ship, Post Office Box 8, South  
Bay, Florida 33493.  
The modification is to revise  
allowable limits for lead (Pb),  
sulfur dioxide (SO<sub>2</sub>), and Mer-  
cury (Hg) when burning wood-  
waste; revise carbon monox-  
ide while burning fuel oil and  
coal; and revise the averaging  
time for CO for all fuels. Annu-  
al emissions will increase only  
for Pb, but the increase is not  
significant (about 0.3 tons)  
with respect to PSD review.  
Pb emissions are minimized by  
the electrostatic precipitators  
used to control particulate  
emissions at the facility. Hg  
emissions are controlled by  
carbon injection. SO<sub>2</sub> emis-  
sions are minimized by burn-  
ing very low sulfur fuel oil and  
limiting the amount of low sul-  
fur coal which can be fired.  
CO emissions are controlled  
by good combustion prac-  
tices.  
An air quality impact analysis  
was updated for the modifica-  
tion. Emissions increases from  
the facility will consume PSD  
increment but will not signifi-  
cantly contribute to or cause a  
violation of any state or feder-  
al ambient air quality stan-  
dards.  
The Department will issue the  
FINAL Permit Modification, in  
accordance with the condi-  
tions of the DRAFT Permit  
Modification unless a re-  
sponse received in accor-  
dance with the following pro-  
cedures results in a different  
decision or significant change  
of terms or conditions.  
The Department will accept  
written comments concerning  
the proposed DRAFT Permit  
Modification issuance action  
for a period of 30 (thirty) days  
from the date of publication of  
this Notice. Written comments  
should be provided to the De-  
partment's Bureau of Air Reg-  
ulation, 2600 Blair Stone  
Road, Mail Station #5505, Tal-  
lahassee, Florida 32399-2400.  
Any written comments filed  
shall be made available for  
public inspection. If written  
comments received result in a  
significant change in this  
DRAFT Permit Modification,  
the Department shall issue a  
Revised DRAFT Permit Modifi-  
cation and require, if applica-  
ble, another Public Notice.  
The Department will issue FI-  
NAL Permit Modification with  
the conditions of the DRAFT  
Permit Modification unless a  
timely petition for an adminis-  
trative hearing is filed pursu-  
ant to Sections 120.569 and  
120.57 F.S. The procedures  
for petitioning for a hearing  
are set forth below. Mediation  
is not available for this action.  
A person whose substantial in-  
terests are affected by the De-  
partment's proposed permit-  
ting decision may petition for  
an administrative hearing in  
accordance with Sections  
120.569 and 120.57 F.S. The  
petition must contain the in-  
formation set forth below and  
must be filed (received) in the  
Office of General Counsel of  
the Department, 3900 Com-

Okeelanta

0990332-006-AC

PSD-FI-196

monwealth Boulevard, Mell Station #35, Tallahassee, Florida 32399-3000, telephone: 850/488-9370, fax: 850/487-4938. Petitions must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-5.207 of the Florida Administrative Code.

A petition must contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of the facts that the petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the Department's action or proposed action addressed in this notice of intent.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Dept. of Environmental Protection  
Bureau of Air Regulation  
111 S. Magnolia Drive, Suite 4  
Tallahassee, Florida, 32301  
Telephone: 850/488-1344  
Fax: 850/922-6979

Dept. of Environmental Protection  
South District  
2295 Victoria Ave. Suite 364  
Ft. Myers, Florida 33901  
Telephone: 813/332-6975  
Fax: 813/332-6969  
Palm Beach County  
Public Health Unit  
901 Evernia  
Post Office Box 29  
West Palm Beach, Florida  
33401  
Phone: 561/355-3070  
Fax: 561/355-2442

The complete project file includes the Draft Permit Modification, the application, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-1344, for additional information.  
PUB: The Palm Beach Post  
September 22, 1997

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.

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:

James J Carlton, AR  
 Atlanta Power, LP  
 P.O. Box 8  
 South Bay, FL  
 33493

4a. Article Number

P 265 659 456

4b. Service Type

- Registered  Certified
- Express Mail  Insured
- Return Receipt for Merchandise  COD

7. Date of Delivery

9/17/97

5. Received By: (Print Name)

*[Signature]*

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

6. Signature (Addressee or Agent)

X

J. Ambrose

PS Form 3811, December 1994

Domestic Return Receipt

Thank you for using Return Receipt Service.

P 265 659 456

US Postal Service  
**Receipt for Certified Mail**

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

Sender	
James Carlton	
Street & Number	
Atlanta 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	9-15-97
0990332-006-AC	
PSD-FI-196	

PS Form 3800, April 1995

P 265 659 457

US Postal Service  
**Receipt for Certified Mail**  
No Insurance Coverage Provided.  
Do not use for International Mail (See reverse)

Sent to	Dan Thompson
Street & Number	Berger Davis
Post Office, State, & ZIP Code	Singerman
Postage	Toll. FI
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	9-15-97
0990332-006-AC	

PS Form 3800, April 1995

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:

Mr. Dan Thompson, Esq.  
Berger, Davis, Singerman  
215 S. Monroe St.  
Tallahassee, FL

4a. Article Number

P 265 659 457

4b. Service Type

- Registered  Certified
- Express Mail  Insured
- Return Receipt for Merchandise  COD

7. Date of Delivery

SEP 17 1997

5. Received By: (Print Name)

Tracy Adams  
Ray G. Oles

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

6. Signature: (Addressee or Agent)

X

PS Form 3811, December 1994

Domestic Return Receipt

Thank you for using Return Receipt Service.

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
  - Express Mail
  - Return Receipt for Merchandise
  - Certified
  - Insured
  - 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



Fold at line over top of envelope to

Is your RETURN ADDRESS completed on the reverse side?

<p><b>SENDER:</b></p> <ul style="list-style-type: none"> <li>■ Complete items 1 and/or 2 for additional services.</li> <li>■ Complete items 3, 4a, and 4b.</li> <li>■ Print your name and address on the reverse of this form so that we can return this card to you.</li> <li>■ Attach this form to the front of the mailpiece, or on the back if space does not permit.</li> <li>■ Write "Return Receipt Requested" on the mailpiece below the article number.</li> <li>■ The Return Receipt will show to whom the article was delivered and the date delivered.</li> </ul>	<p>I also wish to receive the following services (for an extra fee):</p> <p>1. <input type="checkbox"/> Addressee's Address</p> <p>2. <input checked="" type="checkbox"/> Restricted Delivery</p> <p>Consult postmaster for fee.</p>
<p>3. Article Addressed to:</p> <p>David A. Buff, PE          Solder Assoc.          6241 NW 23rd St, Suite 500          Gainesville, FL          32653-1500</p>	<p>4a. Article Number</p> <p>P 265 659 184</p> <p>4b. Service Type</p> <p><input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified</p> <p><input type="checkbox"/> Express Mail <input type="checkbox"/> Insured</p> <p><input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD</p> <p>7. Date of Delivery</p> <p>3/10/97</p>
<p>5. Received By: (Print Name)</p> <p>SAI</p>	<p>8. Addressee's Address (Only if requested and fee is paid)</p>
<p>6. Signature: (Addressee or Agent)</p> <p>X M. Reinert</p>	

Thank you for using Return Receipt Service.

PS Form 3811, December 1994

Domestic Return Receipt

P. 265 659 184

US Postal Service  
**Receipt for Certified Mail**  
 No Insurance Coverage Provided.  
 Do not use for International Mail (See reverse)

Sent to	David Buff
Street & Number	Solder Assoc
Post Office, State, & ZIP Code	Gainesville, 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	
<b>TOTAL Postage &amp; Fees</b>	<b>\$</b>
Postmark or Date	PSD FL-196 3/6/97

PS Form 3800, April 1995



# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

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 (SO<sub>2</sub>). 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 SO<sub>2</sub> 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 SO<sub>2</sub>, 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) <sup>d</sup>						Total <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 (PM <sub>10</sub> )	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	<del>0.02</del> a				1.2 a		1,154.3 f
<u>Bagasse</u>	<u>0.02 a</u>						
<u>Wood Waste</u>	<u>0.05a c</u>						
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							
824-hour average	0.35	250.3	<del>0.2</del> <u>0.35</u>	<del>98.0</del> <u>171.5</u>	<del>0.2</del> <u>0.35</u>	<del>98.0</del> <u>171.5</u>	2,012.5
Volatile Organic Compounds	0.06	42.9	0.03	14.7	0.03	14.7	345
Lead	<del>2.5 x 10<sup>-5</sup></del>	<del>0.018</del>	8.9 x 10 <sup>-7</sup>	0.0004	6.4 x 10 <sup>-5</sup>	0.031	<del>0.17</del> <u>0.454f</u>
<u>Bagasse</u>	<u>2.5 x 10<sup>-5</sup></u>	<u>0.018</u>					
<u>Wood Waste</u>	<u>1.6x10<sup>-4</sup>c</u>	<u>0.114c</u>					
Mercury			2.4 x 10 <sup>-6</sup>	0.00118	8.4 x 10 <sup>-6</sup>	0.0041	0.0300f
Bagasse	<del>6.3 x 10<sup>-6</sup></del>	<del>0.0045 b</del>					
<u>Wood Waste</u>	<u>5.43 x 10<sup>-6</sup>b</u>	<u>0.0039 b</u>					
	<del>0.29 x 10<sup>-6</sup> e</del>	<del>0.00021 e</del>					
	<u>4.0 x 10<sup>-6</sup> c</u>	<u>0.0029 c</u>					
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

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 <sub>2</sub> .
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 <sub>10</sub> 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.

Kuni Ober  
(Clerk)

10-24-97  
(Date)

**Memorandum**

Florida Department of  
Environmental Protection

---

(K)

TO: Howard L. Rhodes

THRU: Clair Fancy *Clair Fancy 10/22*  
Al Linero *Al Linero 10/22*

FROM: Willard Hanks

DATE: October 24, 1997

SUBJECT: Okeelanta Power L.P.  
Modification of Permit  
AIRS No. 0990332-006-AC (PSD-FL-196)

Attached for your approval is a letter that will modify the construction permit for Okeelanta Power's cogeneration facilities located near South Bay in Palm Beach County. No comments were submitted in response to the public notice for the proposed modification.

The modification will require a minor reduction in the amount of coal that can be burned in the facility, and allows increases in the hourly emissions of sulfur dioxide, lead, mercury and carbon monoxide. Except for lead, and as provided for by Specific Conditions of the existing permit, the proposed adjustments will result in annual emissions below the current annual permitted values. The modification also clarifies some compliance testing procedures, including when the sulfuric acid mist compliance test is to be conducted.

That part of this request having to do with the burning of tire derived fuel is being held in abeyance until after Okeelanta conducts the tests and the Department reviews the results. The Department may receive a similar request from this facility once emission data is collected on the burning of bagasse and tire derived fuels at this plant.

I recommend your approval and signature of the letter modifying the permit for the burning of wood waste.

WH/t

Attachment

Fold at line over top of envelope to

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:

Mr. Dan Thompson, Esq  
 Berger, Davis & Singerman  
 215 S. Monroe St.  
 Tallahassee, FL 32301

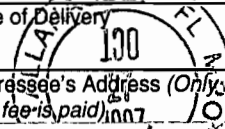
4a. Article Number

P 265 659 477

4b. Service Type

- Registered  Certified
- Express Mail  Insured
- Return Receipt for Merchandise  COD

7. Date of Delivery



5. Received By: (Print Name)

Traci A Adams

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

6. Sign

>

PS F

Thank you for using Return Receipt Service.

Receipt

P 265 659 477

US Postal Service

**Receipt for Certified Mail**

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	Dan Thompson	
Street & Number	Berger Davis & Sing	
Post Office, State & ZIP Code	Tallahassee FL 32301	
Postage	\$	
Certified Fee		
Special Delivery Fee	0990332-006	
Restricted Delivery Fee	0990331-006	
Return Receipt Showing to Whom & Date Delivered		
Return Receipt Showing to Whom, Date, & Addressee's Address		
TOTAL Postage & Fees	\$	
Postmark or Date	Oceola & Okeelanta's Post Mch-10-24-97	

PS Form 3800, April 1995

P 265 659 476

US Postal Service  
**Receipt for Certified Mail**  
No Insurance Coverage Provided.  
Do not use for International Mail (See reverse)

Sent to <i>James Carlton</i>	
Street & Number <i>Okeelanta Power</i>	
Post Office, State, & ZIP Code <i>South Bay, FL</i>	
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 <i>10-24-97</i>	
<i>0990332-006-AC</i>	
<i>PSD-FL-196</i>	

PS Form 3800, April 1995

Is your RETURN ADDRESS completed on the reverse

Write 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:  
*Mr. James J. Carlton, AR*  
*Okeelanta Power, LP*  
*P O Box 8*  
*South Bay, FL*  
*33493*

4a. Article Number  
*P 265 659 476*

4b. Service Type

Registered                       Certified

Express Mail                       Insured

Return Receipt for Merchandise    COD

7. Date of Delivery  
*10/27/97*

5. Received By: (Print Name)

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

6. Signature: (Addressee or Agent)

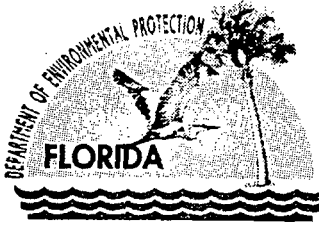
*X Keith Jenkins*

PS Form 3811, December 1994

Domestic Return Receipt

Thank you for using Return Receipt Service.





Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

November 29, 2001

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. David Buff, P.E.  
Golder Associates, Inc.  
6241 NW 23<sup>rd</sup> Street, Suite 500  
Gainesville, FL 32653

Re: Project No. 0990332-014-AC (PSD-FL-196M)  
Okeelanta Power L.P. Cogeneration Plant  
Application to Modify CO and SO<sub>2</sub> Emissions Standards (and Additional Requests)

Dear Mr. Buff:

The purpose of this letter is to summarize the project status based on our phone conversation yesterday. Many concerns have been addressed by the latest version of the "pre-draft" permit. As we discussed, I am still drafting revised conditions regarding CEMS data exclusion, BACT for fluorides, opacity during startups, and general CEMS requirements. By Friday, I plan to send one last "pre-draft" version of the permit for comments.

As you mentioned yesterday, the SO<sub>2</sub> ambient impact analysis should be ready for submittal sometime next week (12/3 – 12/7). Once we receive this information, our 30-day completeness review processing time clock will start. However, we commit to an expeditious review of the modeling analysis and will make completion of this project a priority. If you have any questions, please contact me at 850/921-9536.

Sincerely,

Jeffery F. Koerner, P.E.  
New Source Review Section

cc: Mr. James Meriwether, OkPLP  
Mr. Cleve Holladay, BAR  
Mr. Ron Blackburn, SD  
Mr. James Stormer, PBCHD  
Mr. Gregg Worley, EPA Region 4  
Mr. John Bunyak, NPS

"More Protection, Less Process"

Printed on recycled paper.

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. David Buff, P.E.  
 Golder Associates, Inc.  
 6241 NW 23rd Street, Suite 500  
 Gainesville, FL 32653

2. Article Number (Copy from service label)  
 7000 2870 0000 7028 2966

PS Form 3811, July 1999

Domestic Return Receipt

102595-99-M-1789

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly) B. Date of Delivery

12-3-01

C. Signature

*David Buff*

- Agent  
 Addressee

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

3. Service Type

- Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

7000 2870 0000 7028 2966

**U.S. Postal Service  
 CERTIFIED MAIL RECEIPT  
 (Domestic Mail Only; No Insurance Coverage Provided)**

**OFFICIAL USE**

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$</b>

Postmark Here

**Sent To**  
 David Buff, P.E.  
 Street, Apt. No., or PO Box No.  
 6241 NW 23rd St., Suite 500  
 City, State, ZIP+ 4  
 Gainesville, FL 32653

PS Form 3800, May 2000

See Reverse for Instructions