Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

NOTICE OF PERMIT AMENDMENT

In the matter of an
Application for Permit Amendment by:

DEP File No. AC50-219413
PSD-FL-196(A)

Mr. Dennis Space, Project Director
Okeelanta Power Limited Partnership
Post Office Box 117
South Bay, Florida 33493

Enclosed is amended permit No. AC50-219413, PSD-FL-196(A) which will include a federally-enforceable condition limiting the amount of yard trash which may be burned at Okeelanta's cogeneration facility in South Bay, Florida. This permit amendment is issued pursuant to Section 403, Florida Statutes.

Any party to this Order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 14 days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this **NOTICE OF PERMIT AMENDMENT** and all copies were mailed by certified mail before the close of business on 2-20-96 to the listed persons.

Clerk Stamp
FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to §120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk

2-20-96
Date

Copies furnished to:

David Knowles, SD
Isidore Goldman, SED
James Stormer, PBCHD
Jewell Harper, EPA
John Bunyak, EPA

Is your RETURN ADDRESS completed on the reverse side?

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

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:
Dennis Space, Proj. Dir.
Okeelanta Power Ltd Ptp
PO Box 117
South Bay, Fl 33493

4a. Article Number
Z 127 633 169

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

5. Signature (Addressee)

6. Signature (Agent)

7. Date of Delivery
2/26/96

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

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

Thank you for using Return Receipt Service.

Z 127 633 169

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

UNITED STATES POSTAL SERVICE

Sent to: Dennis Space	
Street and No.: Okeelanta Power LP	
P.O., State and 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, and Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date: 2-20-96	

AC 50-219413
PSD-FL-196(A)

PS Form 3800, March 1993

FINAL DETERMINATION

Okeelanta Cogeneration Facility
PSD-FL-196(A) and AC50-219413

This permit amendment will include a federally-enforceable condition limiting the amount of yard waste (yard trash) which may be burned at the Okeelanta Power Cogeneration facility in South Bay, Florida. This amendment did not change the intent of the previously issued PSD permit nor did it result in an increase of emissions.

This draft Permit Amendment was distributed on December 11, 1995. The Notice of Intent To Issue was published in The Palm Beach Post on January 20, 1996. Copies of the permit amendment evaluation were available for inspection at the office of the Division of Environmental Science and Engineering Palm Beach County Public Health Unit and the Department of Environmental Protection's offices in West Palm Beach, Ft. Myers and Tallahassee.

Comments were submitted by Mr. James Meriwether, Environmental, Health, and Safety Representative for Okeelanta Power Limited Partnership.

Mr. Meriwether requested to include EPA Guidelines for Municipal Waste Combustors, 40 CFR 60 Subpart Cb, requirements and to clarify the wording of specific condition No. 12A. After reviewing his comments and further discussions with Mr. Meriwether, the Department agreed to the revisions as proposed except for the inclusion of Subpart Cb in the specific condition. Municipal Waste Combustors (40 CFR 60, Subpart Cb) will be incorporated in a future permit amendment and in the Title V operating permit consistent with the future State Implementation Plan (SIP) revision implementing this Subpart.

The final action of the Department is to issue the permit amendment with the change as noted above.

Department of Environmental Protection

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

Lawton Chiles
Governor

Virginia B. Wetherell
Secretary

February 19, 1996

CERTIFIED MAIL RETURN - RECEIPT REQUESTED

Mr. Dennis Space
Project Director
Okeelanta Power Limited Partnership
Post Office Box 117
South Bay, Florida 33493

Dear Mr. Space:

RE: Okeelanta Cogeneration Facility
PSD-FL-196; AC50-219413

We are in receipt of your letters dated September 22 and November 9, 1995 requesting amendment of the referenced permit to subject the facility to a federally enforceable condition limiting the amount of material burned which can be construed as municipal-type solid waste (MSW).

The Department has evaluated your proposal and approved your request. The permit is revised to include the following new Specific Condition identified as 12A.

SPECIFIC CONDITION 12A:

Each boiler (co-fired combustor) is limited to combusting a fuel stream, 30 percent or less of the weight of which is comprised, in aggregate, of yard waste (yard trash) defined as a municipal solid waste (MSW) in 40 CFR 60.51a, as measured on a calendar quarter basis. This facility must comply with any applicable requirements in 40 CFR 60 Subpart Ea.

A copy of this amendment letter shall be attached to and shall become a part of Air Construction Permits AC50-219413 and PSD-FL-196.

Sincerely,

Howard L. Rhodes

Howard L. Rhodes, Director
Division of Air Resources
Management

HLR/th/t

Enclosures

cc: Jewell Harper, EPA
John Bunyak, NPS
David Knowles,SD
Isidore Goldman, SED
James Stormer, PBCHD

Florida Department of
Environmental Protection

Memorandum

TO: Howard L. Rhodes

THROUGH: Clair Fancy

FROM: A. A. Linero 2/16
Teresa Heron T.H.

SUBJ: Permit Amendment PSD-FL-196 and AC50-219413
Okeelanta Power Limited Partnership (OPLP)

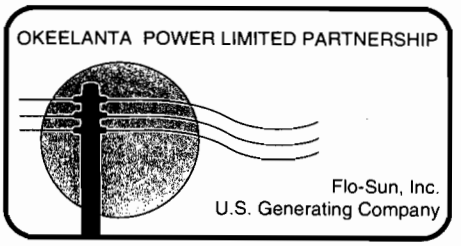
DATE: February 16, 1995

Attached is a permit amendment prepared by the Bureau of Air Regulation for the reference company to include applicable provisions of 40 CFR 60, Subpart Ea, Municipal Waste Combustors.

OPLP's current permit allows the burning of yard trash (yard waste). The new MSW definition in the 40 CFR 60 Subpart Ea includes yard waste as a municipal type solid waste. To be treated as a co-fired unit instead of a MWC, Okeelanta must provide EPA with proof that they have a federally-enforceable permit limiting MSW to 30 percent or less.

This permit amendment provides the federally-enforceable condition without widening the door to new kinds of MSW at that facility. No comments were received during the Public Notice period.

AA1/th/t



January 26, 1996

State of Florida
Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

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

Re: Okeelanta Cogeneration Plant
PSD-FL-196; AC50-219413
Proposed Permit Amendment

Dear Mr. Linero:

The Okeelanta Power Limited Partnership (OkPLP) has reviewed the draft PSD permit amendment prepared by the Florida Department of Environmental Protection (FDEP) for the Okeelanta Cogeneration Facility (Facility). We are pleased that FDEP is prepared to approve the Facility's request for a permit amendment, but I believe the proposed permit amendment should be rewritten, as shown in the following paragraph:

> "Each boiler is limited to combusting a fuel stream, 30 percent or less of the weight of which is comprised, in aggregate, of ~~yard trash (~~yard waste~~)~~ defined as a municipal solid waste (MSW) in 40 CFR 60.51a, as measured on a calendar quarter ~~daily~~ basis. ~~No other wastes which can be construed to be MSW shall be fired~~. This facility must comply with any applicable requirements ~~applicable to co-fired combustors given~~ in 40 CFR 60 Subpart Ea ~~Standards of Performance for Municipal Waste Combustors~~. and Subpart Cb."

The reasons for each of these changes are discussed in the following paragraphs.

1. The EPA definition of "municipal solid waste" (MSW) in 40 CFR 60.51a refers to "yard waste", not "yard trash".

2. Under the EPA regulations, the Facility's fuel must be measured on a calendar quarter basis, not a daily basis.

P.O. BOX 117 SOUTH BAY, FL 33493 407-993-1000 FAX 407-996-6596

3. The Facility should be required to comply with applicable requirements only. It should not be required to comply with all of the requirements that are applicable to cofired combustors. The Facility is exempt from some of the requirements for cofired combustors.

4. It is my understanding that construction of the Okeelanta Facility commenced on or before September 20, 1994. If so, the Facility is subject to 40 CFR 60, Subpart Ea and Subpart Cb.

5. Most importantly, the permit should not contain a complete prohibition on "other wastes which can be construed to be MSW." We debated this issue at great length with FDEP when the PSD permit was prepared in 1993. Okeelanta and FDEP recognized that the Facility's fuel might contain small amounts of paper, plastic, or other materials that are defined as MSW. A complete prohibition on such materials is likely to result in a FDEP enforcement action when FDEP inspects the fuel pile. FDEP's proposed new language in unnecessary and will create future problems for Okeelanta.

Please contact me at (407) 993-1003 if you have any questions.

Sincerely,

James M. Meriwether
Environmental, Health
and Safety Representative

cc: D. Space
D. Schaberg
J. Ketterling
C. Staley
M. Griffin
D. Dee

cc: Teresa Heron, BAR
Dee Goldman, SED
EPA
NPS

OKEELANTA POWER LIMITED PARTNERSHIP
Flo-Sun, Inc.
U.S. Generating Company

RECEIVED
JAN 29 1996
BUREAU OF
AIR REGULATION

January 24, 1996

State of Florida
Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

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

Re: Okeelanta Power Limited Partnership
PSD-FL-196; AC50-219413
Proposed Permit Amendment
Proof of Publication

Dear Mr. Linero:

The "Notice of Intent to Issue Permit Amendment" was published in the Palm Beach Post on Saturday, January 20, 1996. Please find the attached "Proof of Publication" for that Notice.

If you have any questions please contact me at (407) 993-1003.

Sincerely,

James M. Meriwether
Environmental, Health
and Safety Representative

cc: Ajaya K. Satyal - HRS/PBCo
David M. Knowles - FDEP/Ft. Myers
D. Space
D. Schaberg
C. Staley
J. Ketterling
M. Griffin

cc: Teresa Heron, BAR
D. Goldman, SED
J. Harper, EPA
J. Bunyak, NPS

OKPLP File No. 6.3.1.5

THE PALM BEACH POST

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

PROOF OF PUBLICATION

Best Available Copy

STATE OF FLORIDA
COUNTY OF PALM BEACH

Before the undersigned authority personally appeared Chris Bull who on oath says that she/he is Class Adv Mgr 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 Permit Amend. in the ---- Court, was published in said newspaper in the issues of January 20, 1996.

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 23 day of January A.D. 19 96

OFFICIAL NOTARY SEAL
KAREN M MCLINTON
NOTARY PUBLIC STATE OF FLORIDA
COMMISSION NO. CC240480
MY COMMISSION EXP. NOV. 15,1996

Karen M. McLinton, Notary Public

Personally known XX or Produced Identification _____

Type of Identification Produced _____

LEGAL NOTICE
STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL
PROTECTION
NOTICE OF INTENT TO
ISSUE PERMIT AMENDMENT

The Department of Environmental Protection gives notice of its intent to issue a permit amendment to Okeelanta Power Limited Partnership, Post Office Box 117, South Bay, Florida, to add a Federally-enforceable condition to its construction permits limiting to 30 percent the proportion of yard trash (yard waste-a type of municipal solid waste) which may be co-fired at the company's new cogeneration facility located in South Bay, Palm Beach County. The facility is a 72 megawatt power plant, which burns primarily bagasse and wood wastes. Pollution control equipment consists of electrostatic precipitator, Selective Non-Catalytic Reduction, and activated carbon injection.

Yard trash may already be burned at the facility per the existing permits. The purpose of limiting the amount of yard trash in the waste stream is to provide the United States Environmental Protection Agency the necessary documentation that the plant is a co-fired facility and not a Municipal Waste Combustor per 40 CFR 60 Subpart Ea-Standards of Performance for Municipal Waste Combustors.

There are no emissions increases or changes in planned methods of operation associated with the permit amendment.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blairstone Road, Tallahassee, Florida 32399-2400, within 14 days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information; (a) The name, address and telephone number of each petitioner, the applicant's name and address, the Department 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 facts which petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interest will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the

requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The application 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:

Division of Environmental Science and Engineering
Palm Beach County Public Health Unit
901 Evernia
Post Office Box 29
West Palm Beach, Florida 33401

Department of Environmental Regulation
South District
2295 Victoria Avenue
Suite 364
Ft. Myers, Florida 33901

Any person may send written comments on the proposed action to Mr. A.A. Linero at the Department's Tallahassee address. All comments received within 30 days of the publication of this notice will be considered in the Department's final determination.

Further, a public hearing can be requested by any person(s). Such request must be submitted within 30 days of this notice.

PUB: The Palm Beach Post
January 20, 1995

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

December 11, 1995

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Dennis Space
Project Director
Okeelanta Power Limited Partnership
Post Office Box 117
South Bay, Florida 33493

Dear Mr. Space:

RE: Okeelanta Cogeneration Facility
PSD-FL-196; AC50-219413

Attached is one copy of the Proposed Permit Amendment, Intent to Issue, and Public Notice of Intent to Issue Permit Amendment (for publication by Okeelanta) for the co-generation facility located in South Bay, Florida.

The Notice of Intent to Issue Permit Amendment must be published to ensure the Federal enforceability of the change desired by Okeelanta.

Please submit any written comments you may wish to have considered concerning the Department's proposed action to Mr. A. A. Linero, P.E. at the above address. If you have any questions please call Teresa Heron or Mr. Linero at (904)488-1344.

Sincerely,

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

CHF/aal/l

Enclosure

cc: J. Harper, EPA
J. Bunyak, NPS
D. Knowles, SD
J. Stormer, PBCPHU
I. Goldman, SED

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:
Dennis Space, Project Dir.
Okeelanta Power Ltd Ptsp.
P O Box 117
South Bay, Fl
33493

4a. Article Number
Z 127 633 217

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

7. Date of Delivery
12-20-95

5. Signature (Addressee)

6. Signature (Agent)

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

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

Thank you for using Return Receipt Service.

Z 127 633 217

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

UNITED STATES POSTAL SERVICE

Sent to: Dennis Space	
Street and No. Okeelanta Power	
P.O., State and 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, and Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 12-11-95	
AC50-219413	
PSD-FL-196	

PS Form **3800**, March 1993

December XX, 1995

CERTIFIED MAIL RETURN - RECEIPT REQUESTED

Mr. Dennis Space
Project Director
Okeelanta Power Limited Partnership
Post Office Box 117
South Bay, Florida 33493

Dear Mr. Space:

RE: Okeelanta Cogeneration Facility
PSD-FL-196; AC50-219413

We are in receipt of your letters dated September 22 and November 9, 1995 requesting amendment of the referenced permit to subject the facility to a federally enforceable condition limiting the amount of material burned which can be construed as municipal-type solid waste (MSW).

The Department has evaluated your proposal and approved your request. The permit is revised to include the following new Specific Condition identified as 12A.

SPECIFIC CONDITION 12A:

Each boiler is limited to combusting a fuel stream, 30 percent or less of the weight of which is comprised, in aggregate, of yard trash (yard waste) defined as a municipal solid waste (MSW) in 40 CFR 60.51a, as measured on a calendar quarter daily basis. No other wastes which can be construed to be MSW shall be fired.

This facility must comply with any requirements applicable to co-fired combustors given in 40 CFR 60 Subpart Ea-Standards of Performance for Municipal Waste Combustors.

A copy of this amendment letter shall be attached to and shall become a part of Air Construction Permits AC50-219413 and PSD-FL-196.

Sincerely,

Howard L. Rhodes, Director
Division of Air Resources
Management

HLR/th/t

Enclosures

cc: Jewell Harper, EPA
John Bunyak, NPS
David Knowles,SD
Isidore Goldman, SED
James Stormer, PBCHD

INTENT TO ISSUE

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

CERTIFIED MAIL

In the Matter of an
Application for Permit by:

Okeelanta Power Limited Partnership
Post Office Box 117
South Bay, Florida 33493

DER File No. PSD-FL-196
AC50-219413
Palm Beach County

_____/

INTENT TO ISSUE

The Department of Environmental Protection gives notice of its intent to issue a permit amendment (copy attached) for the proposed project as detailed in the application specified above, for the reasons stated below.

The applicant, Okeelanta Power Limited Partnership, applied on November 9, 1995 to the Department of Environmental Protection for a permit amendment to include a federally-enforceable condition limiting the amount of yard trash (yard waste - a type of municipal solid waste) which may be burned at its cogeneration facility in South Bay, Florida.

The Department has permitting jurisdiction under DEP rules 62-4, 62-210, 62-212, 62-275, 62-296, 62-297 Florida Administrative Code (F.A.C.). The project is not exempt from permitting procedures. The Department has determined that an amendment of both the State of Florida Air Construction Permit and the Federal Prevention of Significant Deterioration (PSD) permit is required for the proposed change. The Department intends to amend these permits as requested on the basis that there will be no emission increases and that there are no relaxations of any permit conditions.

Pursuant to Section 403.815, Florida Statutes and DEP Rule 62-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice shall be published one time only within 30 days in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "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, at [Department address] within 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.

The Department will issue the permit amendment with the attached condition unless a petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of their receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information;

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department 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 facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this intent. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this intent in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this **INTENT TO ISSUE** and all copies were mailed by certified mail before the close of business on November 11, 1995 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to S.120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk 12/11/95
Date

Copies furnished to:
Jewell Harper, EPA
David Knowles, SD
James Stormer, PBCHD
John Bunyak, NPS
Isidore Goldman, SED

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF INTENT TO ISSUE PERMIT AMENDMENT

The Department of Environmental Protection gives notice of its intent to issue a permit amendment to Okeelanta Power Limited Partnership, Post Office Box 117, South Bay, Florida, to add a Federally-enforceable condition to its construction permits limiting to 30 percent the proportion of yard trash (yard waste-a type of municipal solid waste) which may be co-fired at the company's new co-generation facility located in South Bay, Palm Beach County. The facility is a 72 megawatt power plant which burns primarily bagasse and wood wastes. Pollution control equipment consists of electrostatic precipitator, Selective Non-Catalytic Reduction, and activated carbon injection.

Yard trash may already be burned at the facility per the existing permits. The purpose of limiting the amount of yard trash in the waste stream is to provide the United States Environmental Protection Agency the necessary documentation that the plant is a co-fired facility and not a Municipal Waste Combustor per 40 CFR 60 Subpart Ea-Standards of Performance for Municipal Waste Combustors.

There are no emissions increases or changes in planned methods of operation associated with this permit amendment.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information; (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department 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 facts which petitioner

contends warrant reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The application 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:

Division of Environmental Science and Engineering
Palm Beach County Public Health Unit
901 Evernia
Post Office Box 29
West Palm Beach, Florida 33401

Department of Environmental Regulation
South District
2295 Victoria Avenue, Suite 364
Ft. Myers, Florida 33901

Any person may send written comments on the proposed action to Mr. A. A. Linero at the Department's Tallahassee address. All comments received within 30 days of the publication of this notice will be considered in the Department's final determination.

Further, a public hearing can be requested by any person(s). Such requests must be submitted within 30 days of this notice.

Florida Department of
Environmental Protection

Memorandum

TO: Clair Fancy

FROM: A. A. Linero 11/29

SUBJ: Permit Amendment PSD-FL-196 and AC50-219413
Okeelanta Power Limited Partnership (OPLP)

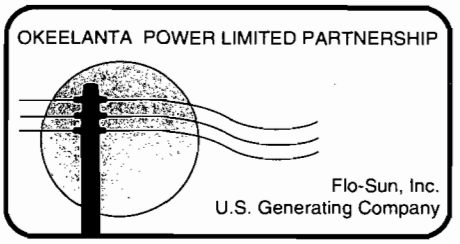
DATE: November 30, 1995

Attached is a draft permit amendment prepared by the Bureau of Air Regulation for the reference company to include applicable provisions of 40 CFR 60, Subpart Ea, Municipal Waste Combustors.

OPLP's current permit allows the burning of yard trash (yard waste). The new MSW definition in the 40 CFR 60 Subpart Ea includes yard waste as a municipal type solid waste. To be treated as a co-fired unit instead of a MWC, Okeelanta must provide EPA with proof that they have a federally-enforceable permit limiting MSW to 30 percent or less.

This permit amendment provides the federally-enforceable condition without widening the door to new kinds of MSW at that facility.

AAl/th/t



November 9, 1995

State of Florida
Department of Environmental Protection
Division of Air Resources Management
New Source Review Section
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

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

Re: Okeelanta Power Limited Partnership (OPLP)
PSD-FL-196, AC50-219413
Permit Amendment

Dear Mr. Linero:

In our letter dated September 22, 1995, OPLP requested an amendment to our PSD permit (PSD-FL-196; AC50-219413) that was issued by the Florida Department of Environmental Protection (FDEP). This amendment was requested to ensure that OPLP's PSD is consistent with the regulatory requirements of 40 CFR 60.59a (a) (1), which provides that, "The initial report to FDEP from a cofired combustor must include a copy of a Federally-enforceable permit limiting the maximum amount of MSW that may be combusted in the cofired combustor, expressed as a percentage of the aggregate fuel feed stream." At the present time the OPLP PSD permit does not contain a limit on the "specific percentage" of MSW that may be combusted at the facility. The amendment was requested to be consistent with the above referenced standard and to ensure compliance with all potentially applicable standards.

After the PSD permit was issued, OPLP became aware that 40 CFR 60 Subpart Ea, Standards of Performance for Municipal Waste Combustors (MWC), could be applicable to this facility. This is primarily due to the broad definition of Municipal Solid Waste (MSW) in Subpart Ea. Discussions with EPA confirmed our initial suspicion. However, the Okeelanta facility will qualify for the exemption for cofired combustors at 40 CFR 60.50a (e), if the OPLP PSD permit is amended. The amendment requested September 22, 1995, is intended to include the specific permit language required by the exemption, but the amendment is <u>not</u> intended to allow any changes to the amount or types of fuels to be combusted.

P.O. BOX 117 SOUTH BAY, FL 33493 407-993-1000 FAX 407-996-6596

Specific Condition No. 12 of OPLP's PSD permit is very specific about the types of fuel that may combusted at the site.

> "The primary fuel for the facility shall be biomass--bagasse and wood waste material. Authorized wood waste material is clean construction and demolition wood debris, yard trash, land clearing debris, and other clean cellulose and vegetative matter."
>
> "The biomass fuel used at the cogeneration facility shall not contain hazardous substances, hazardous wastes, biomedical wastes, or garbage. The fuel used at the cogeneration facility shall not contain special wastes, except wood, lumber, trees, tree remains, bagasse, cane tops and leaves, and other clean vegetative and cellulose matter."

In the 1991 Federal Register notice for Subpart Ea, EPA indicated that "municipal solid waste" includes "yard wastes."56 Federal Register 5490 (February 11, 1991). As part of the delivered fuel stream, OPLP may combust (but tries to avoid) leaves, grass clippings or similar vegetative material. This material could be defined as yard waste or MSW. For this reason and this reason alone, OPLP has requested our permit be amended to limit the amount of these materials in our fuel feed stream to 30% or less. OPLP is not requesting approval to combust any fuels outside the scope of our current PSD permit.

It is my understanding that the EPA regulations for cofired combustors will be clarified and simplified. Under the new regulations, cofired combustors will not be subject to the MWC regulations if the owner or operator of the facility: (a) notifies EPA that the facility is exempt from the MWC regulations; (b) provides EPA with a copy of its federally enforceable permit, which limits the facility to using no more than 30% MSW as fuel; and (c) keeps a record on a calendar quarter basis of the weight of municipal solid waste combusted at the cofired combustor and the weight of all other fuels combusted at the cofired combustor.

In addition, "clean wood" has been excluded from the definition of MSW. Consequently, if OPLP burns clean wood as fuel, the clean wood will not count toward the 30% limitation for cofired combustors, even if the clean wood comes from residential areas.

The proposed regulations will also provide more flexibility for the operation of the OPLP facility because they indicate that the 30% limitation on cofired combustors will be based on the weight of municipal solid waste (MSW) that is used in the cofired combustor "as measured on a calendar quarter basis." Earlier versions of the proposed EPA rules required compliance with the 30% limit on a daily basis.

These MWC regulations were signed in final form on October 31, 1995 and can be reviewed on EPA's electronic bulletin board.

In summary, OPLP has requested an amendment to our PSD permit that incorporates language limiting the amount of MSW that may be used for fuel at the facility. Proposed language can be found on page two, paragraph five of our letter dated September 22, 1995. For the purposes of this amendment, the only "MSW" that OPLP may potentially use as fuel is defined as yard trash, i.e., leaves, grass clippings, and certain similar vegetative matter.

In our original request OPLP submitted a $50.00 check for the requested permit amendment fee. During a recent conversation you indicated the appropriate fee is $250.00. Enclosed is a check for an additional $200.00 to cover the outstanding balance. Please call James Meriwether or myself at (407) 993-1003 if you have any questions.

Sincerely,

Dennis V. Space
General Manager

cc: C. Fancy - FDEP/TLH
J. Meriwether
D. Dee

bc: C. Staley
D. Schaberg
M. Griffin
M. Carney

OPLP File No. 6.3.1.5

CC: SED
NPS
EPA
T. Heron
P. B. Co.

OKEELANTA POWER LTD. PARTNERSHIP
6 MILES SOUTH OF SOUTH BAY
ON US HWY. 27
SOUTH BAY, FL 33493

1245

83-643/670
03668

October 31 19 95

PAY
TO THE
ORDER OF Florida Department of Environmental Protection $200.00**

Two hundred and 00/100---------- DOLLARS

FIRST UNION
First Union National Bank of Florida
Ft. Lauderdale, Florida
24 Hour Information Service
1-800-735-1012

FOR PSD-FL-196;AC50-219413 Permit Amendment Fee

[redacted]

(C)LARKE AMERICAN BA
GUARDIAN® SAFETY

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

October 25, 1995

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Dennis Space
Project Director
Okeelanta Power L.P.
Post Office Box 117
South Bay, Florida 33493

RE: Okeelanta Cogeneration Facility
PSD-FL-196, AC50-219413

Dear Mr. Space:

The Bureau of Air Regulation received your September 22, 1995, request to amend the above referenced permit. Rule 62-4.050(4)(o), F.A.C., requires a $250 processing fee for a permit amendment; therefore, we will not be able to begin processing your request until an additional $200 is received.

Although we have not processed the amendment, a cursory review indicates that the matter may require more than an amendment to implement.

If you have any questions, please call Willard Hanks or Patty Adams at (904)488-1344.

Sincerely,

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

AAL/pa

cc: C. Fancy

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:
Dennis Spence, PD
Okeelanta Power, LP
PO Box 117
South Bay, FL 33493

4a. Article Number
Z 127 632 556

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

7. Date of Delivery
10-30-95

5. Signature (Addressee)

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

6. Signature (Agent)

PS Form **3811**, December 1991 [illegible]: 1993—352-714 **DOMESTIC RETURN RECEIPT**

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

Z 127 632 556

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

UNITED STATES POSTAL SERVICE

Sent to Dennis Spence	
Street and No. Okeelanta Power	
P.O., State and ZIP Code S. Bay, FL	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date AC50-219413 PSD-FL-196	10-25-95

PS Form **3800**, March 1993

OKEELANTA POWER LIMITED PARTNERSHIP

Flo-Sun, Inc.
U.S. Generating Company

October 16, 1995

Air Pesticides and Toxic Substances Management Division
Environmental Protection Agency
Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30365

Attn: Mr. Winston A. Smith, Director

Re: Okeelanta Power Limited Partnership
Palm Beach County
South Bay, Florida
Initial Firing of Auxiliary Boilers
PSD-FL-196

Dear Mr. Smith:

The Okeelanta Power Limited Partnership's (OPLP) "Notification of the Anticipated Date of Initial Startup", dated August 17, 1995, is hereby amended as follows. Boilers "B", "A", and "C" are anticipated to fire biomass for the first time on or after October 24, 25, and 26 respectively. This amendment is required due to changes in the start-up schedule and is a continuation of OPLP's commitment to fulfill the requirements of 40 CFR 60.7 (a) (2).

If you have any questions please contact me at (407) 993-1003.

Sincerely,

James M. Meriwether
Environmental, Health
and Safety Representative

cc: Clair Fancy, FDEP/TLH
Ajaya K. Satyal, HRS/PBCo
David M. Knowles, FDEP/Ft. Myers

bc: D. Space J. Ketterling
C. Staley H. Sturm
M. Griffin K. Mazur

P.O. BOX 117 SOUTH BAY, FL 33493 407-993-1000 FAX 407-996-6596

M.A. Griffin

Bechtel Corporation
Supplier Document Transmittal

RECEIVED
22 1995

Okeelanta Cogeneration Project
9801 Washingtonian Boulevard, 14th Floor
Gaithersburg, Maryland 20879
301-417-3000

To: Mr. Clifford M. Denker, P.E. Enviroplan 3 Becker Farm Road Roseland, NJ 07068	**Date:** September 21, 1995 **Bechtel Job Number 22433** **Transmittal Number:** BTV95-0721 **Purchase Order No.:** 22433-J-353 **File Number:** GA753/GA024,w/1

ACTION CODE TO VENDOR:

1. Work May Proceed.
2. Revise and Re-Submit. Work May Proceed Subject to Incorporation of Changes Indicated.
3. Revise and Re-Submit. Work May Not Proceed.
4. Review Not Required. Work May Proceed.
5. For Information Only.

Other Comments: Status Codes 1, 4, and 5 will not be returned to the supplier.

DESCRIPTION

Action:	Vendor/Bechtel Document No.:	Rev.:	Title:

See attached listing.

RECEIVED
SEP 22 1995
CURT STALEY

Very Truly Yours,

for Quma P. Klasco

E. H. Liu
Senior Project Engineer

Distribution:
C. Staley, w/3B (Code 1, 4, or 5 dwgs)
Control Systems, w/o
Construction (PLT) w/1B (Code 1, 2, 4, 5 dwgs)
Start-Up Manager, w/1B

FLO SUN'S COGENERATION PROJECTS
Xmittal Number Report
Job Number: 22433
FROM Xmittal Number: BTV95-0721 TO BTV95-0721

09/21/95

S U P P L I E R D O C U M E N T R E G I S T E R

Document Type	Bechtel No/Po/ Contract Locator	Sub	Chng Not	Supplier Number	Sheet	Rev	Sys	Document Title	Received Date	Forecast Date	Xmittal Date	Action	Resp Disc	Remarks
** BTV95-0721														
	J-353-0054	02						PERF DRAFT PROTOCOL FOR EVAL OF CEMS UNITS 1,2,3	09/20/95	10/04/95	09/21/95	1	CS	

Okeelanta Power Limited Partnership

October 6, 1995

Mr. Clair Fancy
Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blairstone Road
Tallahassee, FL 32399-2400

RE: Okeelanta Cogeneration Facility
CEM Certification Test Protocol
Permit No.: AC50-219413, PSD-FL-196

Dear Mr. Fancy:

Okeelanta Cogeneration Limited Partnership (OPLP) is pleased to submit the enclosed protocol for certification of the Continuous Emission Monitoring (CEM) System required by Special Condition 6 of the PSD permit. I am also forwarding a copy of the protocol to Mr. Mike Harley in the Bureau of Air Monitoring and Mr. David Knowles of the South Florida District to facilitate FDEP's review.

We expect the testing to occur in December of this year and will coordinate with Mr. Knowles. Please call me (301) 718-6973 if you have any questions or comments.

Sincerely,

Michelle Golden Griffin
Environmental Compliance Specialist

MG/tmk

Enclosure

cc: M. Harley, FDEP, Tallahassee
D. Knowles, FDEP, Ft. Myers

7500 Old Georgetown Road • Bethesda, Maryland 20814-6161 • 301-718-6800 • Fax 301-718-6900
An affiliate of U.S. Generating Company

Job No: 22433

J-353-0054

02

OKEELANTA COGENERATION PROJECT	
Bechtel Corporation	JOB NO. 22433
SUPPLIER DOCUMENT REVIEW STATUS	

STATUS NO.

1 [X] Work may proceed.
2 [ ] Revise and resubmit. Work may proceed subject to incorporation of changes indicated.
3 [ ] Revise and resubmit. Work may not proceed.
4 [ ] Review not required. Work may proceed.
5 [ ] For information only.

Permission to proceed does not constitute acceptance or approval of design details, calculations, analyses, test methods or materials developed or selected by the supplier and does not relieve supplier from full compliance with contractual obligations.

REVIEWED BY: J. Runge — DATE: 9-20-95

GA-41224 Small 10/93

PERFORMANCE SPECIFICATION TEST PROTOCOL

Prepared for

ENVIROPLAN
3 Becker Farm Road
Roseland NJ 07066
Attn: Clifford Denker

Recon®

Division of
RECON Environmental Corp.

5 Johnson Drive, P.O. Box 130
Raritan, NJ 08869-0130

(908) 526-1000
FAX (908) 526-7886

AirRecon®
Division of
RECON Environmental Corp.

5 Johnson Drive, PO Box 130
Raritan, NJ 08869-0130
(908) 526-1000
FAX (908) 526-7886

Boston (617) 337-7887
New York (212) 545-7440
Los Angeles (714) 752-1818
San Francisco (415) 742-9900

PERFORMANCE SPECIFICATION TEST PROTOCOL

Prepared for

ENVIROPLAN
3 Becker Farm Road
Roseland NJ 07066
Attn: Clifford Denker

Source:

Okeelanta Cogeneration Project
South Bay, Florida

Facility Permit No. AC50-219413
PSD-FL-196

Prepared by

Frank W. Swetits (ext. 408)
Vice President
AirRECON Division

AirRECON Project No. AR5-6931

September 19, 1995

D.47

TABLE OF CONTENTS

1.0 SOURCE INFORMATION

1.1 PLANT INFORMATION

Contact

OKEELANTA COGENERATION PROJECT
South Bay, Florida

Jim Snyder, Project
Start-up Manager
Phone: 407-992-9900
Fax: 996-2230

1.2 INSTRUMENT INSTALLER

ENVIROPLAN
3 Becker Farm Road
Roseland NJ 07088

Clifford Denker
Phone: 201-994-2300
Fax: 201-994-5100

1.3 CONSULTANT INFORMATION

RECON ENVIRONMENTAL CORP.
5 Johnson Drive
P.O. Box 130
Raritan NJ 08869-0130

John M. Collette or
Frank W. Swetits
Phone: 908-526-1000
Fax: 908-526-7886

1.4 SOURCE OPERATION DURING RA EVALUATIONS

The facility will operate under requirements of 40 CFR 60 for load during the relative accuracy evaluation of the oxygen, nitrogen oxides, sulfur dioxide, carbon dioxide, and carbon monoxide CEM system.

2.0 PROJECT OVERVIEW

The evaluation will be performed at a 74.9 megawatt (gross) electric (1-hour average) cogeneration facility (biomass-bagasse and wood waste material as the primary fuel, No. 2 fuel oil as a supplementary fuel). The facility is located at Okeelanta Corportion's sugar mill, which is six miles south of South Bay, off U.S. Highway 27, Palm Beach County, Florida.

The cogeneration facility contains three ABB/CE spreader stoker or equivalent steam boilers with a design heat input for each boiler of 715 MMBtu/hr on biomass and 490 MMBtu/hr on fossil fuels. Each boiler will produce approximately 455,400 lbs/hr of steam at 1,500 psig and 975°F.

ENVIROPLAN is supplying a continuous emission monitoring (CEM) system on the exhaust stack of each of the three boilers. Each CEMS measures and records stack concentrations of oxygen (O_2), nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO_2), carbon dioxide, and opacity on a continuous basis.

ENVIROPLAN contracted AirRECON, a division of RECON ENVIRONMENTAL CORP., to perform the relative accuracy (RA) test portion of the initial performance specification test (PST) on each of the O_2, CO_2, SO_2, CO, and NO_x CEM systems. ENVIROPLAN will be performing the calibration error (CE) portion of the opacity monitor evaluations. Calibration drift (CD) will be performed by ENVIROPLAN and/or plant personnel for all monitors.

This protocol describes the source's CEM systems, the reference method CEM system, and the RA, CD and CE test procedures. In summary, AirRECON's reference system will continuously extract (and analyze) gas from the same stack that the plant's systems extracts its sample. Comparison of the reference system data to the plant's CEMS data will determine the relative accuracy performance of the plant's CEM system.

The CD test for SO_2, CO_2, O_2, CO, NO_x, and opacity will be performed by challenging the CEM system with an appropriate upscale and zero calibration standard. All instruments will be challenged on a daily basis for eight consecutive days. Calibration drift performance will be assessed by comparing the CEM system's recorded response to the value of the calibration gas standard.

The opacity monitor will be tested for calibration error. Low, medium and high attenuators will be used to challenge the analyzer five non-consecutive times.

3.0 OKEELANTA/ENVIROPLAN CEM SYSTEM

Table 1 below describes the CEMS for each boiler stack; Table 2 describes the "acceptance" criteria for each instrument.

Table 1

OKEELANTA - CEMEX SYSTEMS						
Instrument Units 1, 2 & 3	ENVIROPLAN Part No.	Gas Constituents		Dilution Number	Orifice Size	Analyzer Ranges
		Maximum Expected	Full Scale			
CO_2 Analyzer Milton Roy ZRH1	A1086-002	12%	0 - 20%	120	50 ml	0 - 2000 ppm
SO_2 Analyzer TECO 43B	A1126-003	47 ppm	0 - 60 ppm	120	50 ml	0 - 0.5 ppm
NO_x Analyzer TECO 42D	A1160-003	83 ppm	0 - 240 ppm	120	50 ml	0 - 2 ppm
CO Analyzer TECO 48	A1128-FAFFAJ00	315 ppm	0 - 600 ppm	120	50 ml	0 - 5 ppm
O_2 Probe/Converter Yokogawa	A1032-000/-002	20%	0 - 25%	N/A	N/A	0 - 25%

Table 2

OKEELANTA - CEMEX SYSTEMS			
Instrument	Allowable Relative Accuracy (%)		Reference *
	In Terms of Mean RM Value	In Terms of Applicable Standard	
CO_2	$\leq$20	$\leq$1 **	pg. 949, paragraph 2.3
SO_2	$\leq$20	$\leq$15/20	pg. 944, paragraph 4.3
NO_x	$\leq$20	$\leq$10	pg. 944, paragraph 4.3
CO	$\leq$10	$\leq$5	pg. 950, paragraph 2.3
O_2	$\leq$20	$\leq$1 **	pg. 949, paragraph 2.3

* Referenced from 40 CFR 60, revised as of July 1, 1994

** One percent difference O_2 or CO_2

4.0 TECHNICAL APPROACH

The principle of the RA test is to sample the stack gas and analyze it using the reference CEMS. The reference method data is then compared to the results of the source CEMS data for SO_2, O_2, NO_x, CO_2 and CO gathered during the same period.

The NO_x, SO_2, and CO CEMS will be evaluated for relative accuracy for concentration (ppm), mass emission rate (pounds/hr) and emissions per heat input (pounds/mmBtu). The pound/million BTU emission rates will be determined using an oxygen based F Factor. Pound/hour rates will be calculated using the pound/million Btu rate and the firing rate (Btu/hr) of each boiler. The O_2 and CO_2 CEMS will be evaluated for RA on a concentration basis.

The acceptability of the opacity monitor will be verified by obtaining a "Certificate of Conformance" from the manufacturer. The "Certificate of Conformance" will serve to verify that the opacity monitor meets the design criteria as stipulate din 40 CFR, Appendix B, PS 1, Sec. 6.5. Calibration error tests will also be conducted to verify performance.

4.1 REFERENCE METHODS

The RA test consists of performing at least nine 21-minute test runs for SO_2, CO_2, O_2, NO_x and CO using EPA Reference Methods (RM) 6C, 3A, 7E and 10 respectively. A maximum of twelve 21-minute test runs may be performed. These tests will be conducted in accordance with Title 40, Code of Federal Regulations (CFR), Part 60, Appendix B, Performance Specifications 2, 3, and 4.

Relative accuracy for oxygen and carbon dioxide will be calculated based upon concentrations only. The relative accuracy for NO_x, SO_2 and CO will be calculated for concentrations (ppmv), mass emission rates (pounds per hour) and emissions per heat input (pounds per million Btu).

4.2 REFERENCE CEM SYSTEM

AirRECON's extractive system consists of a stainless steel probe with a calibration tee, a stack-mounted moisture removal conditioner, and a Teflon sample line, which will convey sample from the stack to a mobile laboratory trailer.

Within the trailer, a sample transport system will filter and distribute sample gas to reference analyzers. The sampling system will follow the specifications of EPA Reference Method 6C.

SO_2, CO_2, O_2, NO_x and CO concentration data will be measured and recorded on a continuous basis on a Molytek strip-chart recorder and an IBM compatible computer. A "snapshot" of stack concentrations will be recorded every 30 seconds.

5.0 CEMS PERFORMANCE EVALUATION

The CEMS performance evaluation determines the system's ability to comply with the CEMS performance specifications contained in 40 CFR 60, Appendix B, Performance Specifications 1 - 4. The performance testing consists of three procedures: relative accuracy (RA), calibration drift (CD), and calibration error (CE) tests.

5.1 RELATIVE ACCURACY TEST PROCEDURES

REFERENCE METHODS 3A, 6C, 7E and 10: The RA testing is initiated by first selecting an appropriate measurement site in each of the stacks. Existing ports at the same location as the CEMS probes will be used for the RA tests. Attachment II contains schematics of each of the stacks and the port locations.

Prior to the start of testing, an analyzer calibration error check and a sampling system bias check will be performed on the reference system.

During the analyzer calibration error check, each reference analyzer will be challenged with zero (less than 0.25% of the instrument span), mid (40 to 60% of span) and high (80 to 100% of span) level calibration gases.

All calibration gases used during the CEMS relative accuracy test will be USEPA Protocol I standards.

The error check will be considered invalid if the gas concentration displayed by the analyzers exceeds $\pm$ 2% percent of the span for any of the calibration gases introduced to the analyzers.

A bias check will then be conducted by introducing a zero gas and an upscale calibration gas for each analyzer at the sample probe. The upscale standard used will be the one closest in concentration to the average stack concentration.

The bias check will be considered invalid if the system's response differs from the response recorded during the analyzer calibration by more than $\pm$ 5% of the respective analyzer's span.

The reference method system response time will be determined by observing the times required to achieve stable response for both the zero and higher-level gases.

The following is a summary of the reference method analyzers and their respective operating ranges for this test program.

PARAMETERS	MODEL	RANGE OF OPERATION
O_2	Servomex 1400	0-25% dry
CO_2	FUJI 760	0-20% dry
CO	TECO 48	0-1000 ppmvd
NO_x	TECO 42H	0-250 ppmvd
SO_2	WR-721ATM	0-100 ppmvd

Each test run will be 21 minutes long. After each test run, a zero and calibration drift check will be performed by reintroducing, to the sample probe, the gases used for the bias check. Drift will be considered excessive if monitor response differs from the response recorded during the bias check by more than $\pm$ 3% of span.

5.2 CALIBRATION DRIFT TEST PROCEDURES

The CD test determines the susceptibility of the CEMS to thermal or electronic drift, which can bias the system's recorded results.

SULFUR DIOXIDE, CARBON DIOXIDE, OXYGEN, NITROGEN OXIDES AND CARBON MONOXIDE: The CD is conducted by calibrating the CEM system's SO_2, CO_2, NO_x, CO_2 and O_2 analyzers at two points once per day for eight consecutive days.

The plant's CEMS system(s) will be calibrated at a zero point and a high point (80 to 90% of each instrument's operating range) once per day. The analyzers' response to the daily CD tests will be compared to the values of the respective calibration standards used during the CD testing.

OPACITY: The calibration drift test will be performed daily for eight consecutive days. The opacity monitor will be challenged with a zero (less than 5%) and then on an upscale attenuator on a daily basis. The response of the opacity CEMS will be recorded by the data acquisition system. An acceptable level of drift is not greater than $\pm$3% opacity.

5.3 OPACITY CALIBRATION-ERROR TEST PROCEDURES

The opacity monitor calibration-error (CE) test consists of inserting, one at a time, three different range-calibrated attenuators (low, medium and high) into the light beam of the transmissometer and recording the analyzer response. The calibration error procedure is repeated five non-consecutive times for each attenuator.

The error-check will be considered invalid if the average response of the opacity monitor to each of the attenuator disks exceeds $\pm$3% opacity. The calibration error test will be performed by ENVIROPLAN or plant personnel.

6.0 REPORTING

A comprehensive final report will be issued, which will include:

- Relative accuracy, calibration drift, and opacity calibration error results
- Relative accuracy, calibration drift, and opacity calibration error calculations
- Field data (raw and summarized)
- Calibration gas certificates
- *Certificate of Conformance* provided by opacity monitor manufacturer
- Serial and model number of the permanently installed SO_2, CO_2, O_2, NO_x, CO and opacity CEM instruments

Submitted by:

Frank W. Swetits
Vice President
AirRECON Division

FWS/prh (D.47)
Enclosure

Air Recon®
Division of
RECON Environmental Corp.

Raritan, NJ 08869-0130

ATTACHMENT 1

PERMIT

Florida Department of
Environmental Protection

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

Lawton Chiles
Governor

Virginia B. Wetherell
Secretary

April 8, 1994

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Gus R. Cepero, Vice President
Osceola Power Limited Partnership
P. O. Box 86
South Bay, Florida 33493

Dear Mr. Cepero:

Re: Permit No. AC 50-219795/PSD-FL-197

The Department is in receipt of your March 28, 1994, letter requesting that the referenced permit be amended. The amendment is to authorize higher steam and electrical production by the facility. This will be accomplished through the use of more efficient steam generators and steam turbines. The maximum heat input and allowable emissions for the facility are not being changed.

This request is acceptable and the facility description in the Best Available Control Technology determination and permit, Specific Condition No. 1, and Specific Condition No. 11 are amended:

From:

Description (Best Available Control Technology determination)

The applicant proposes to construct a 60 MW (gross) electric cogeneration facility consisting of two 665 MMBtu/hr spreader-stroker boilers that will burn biomass (bagasse and wood waste material), No. 2 fuel oil, and coal.

Description (Permit)

Construct a 60 (gross) megawatt (MW), electric, (1-hour average), cogeneration facility (biomass--bagasse and wood waste material as the primary fuel, No. 2 oil as a supplementary fuel, and low sulfur coal as an alternate fuel) at Osceola Farms' sugar mill that is east of Pahokee, Palm Beach County, Florida. The cogeneration

facility contains two ABB Model VU-40 (or equivalent) spreader-stroker steam boilers with a design heat input for each boiler of 665 million British thermal units per hour (MMBtu/hr) on biomass and 460 MMBtu/hr on fossil fuels. Each boiler will produce approximately 427,400 lbs/hr of steam at 1,500 pounds per square inch gauge (psig) and 950°F. Particulate matter, nitrogen oxides, and mercury emissions from each boiler will be controlled by Flakt, Inc. (or equivalent) electrostatic precipitator, Thermal $DeNO_x$ (or equivalent) selective non-catalytic reduction system, and an activated carbon injection (or equivalent) system, respectively. Auxiliary equipment includes feed and ash handling systems, steam turbines and condensers, electric generators, cooling towers, and stacks that are 7.0 ft in diameter and, a minimum of 180 ft. high.

Specific Conditions

1. Construction of the proposed cogeneration facility shall reasonably conform to the plans described in the application. The facility shall be designed, constructed, and operated so that its gross generating capacity shall not exceed 60 megawatt (MW), 1 hour average, except during scheduled emission compliance and equipment performance tests. Equipment performance testing in excess of 60 MW shall be limited to a total of 24 hours (cumulative) during the 180-day calendar period after initial firing of each boiler. The permittee shall provide the Department with engineering, monitoring, and reporting plans for the generation capacity of the facility within 30 days after the plans become available.

11. The proposed cogeneration facility steam generating units shall be constructed and operated in accordance with the capabilities and specifications described in the application. The facility shall not exceed 60 (gross) megawatts generating capacity, 1 hour average, except during emission compliance and equipment performance tests. Equipment performance tests shall be limited to a 180 day calendar period after initial firing of each boiler. The maximum heat input rate for each steam generator shall not exceed 665 MMBtu/hr when burning 100 percent biomass and 460 MMBtu/hr when burning 100 percent No. 2 fuel oil or low sulfur coal. Maximum heat input to the entire facility (total of two boilers) shall not exceed 7.0×10^{12} Btu per year. Steam production of each boiler shall not exceed an average of 427,409 lbs/hr at 1,500 psig, 950°F.

To:

Description (Best Available Control Technology determination)

The applicant proposes to construct a 65 MW (gross) electric cogeneration facility consisting of two 665 MMBtu/hr spreader-stroker boilers that will burn biomass (bagasse and wood waste material), No. 2 fuel oil, and coal.

Description (Permit)

Construct a 65 (gross) megawatt (MW), electric, (1-hour average), cogeneration facility (biomass--bagasse and wood waste material as the primary fuel, No. 2 oil as a supplementary fuel, and low sulfur coal as an alternate fuel) at Osceola Farms' sugar mill that is east of Pahokee, Palm Beach County, Florida. The cogeneration facility contains two ABB Model VU-40 (or equivalent) spreader-stroker steam boilers with a design heat input for each boiler of 665 million British thermal units per hour (MMBtu/hr) on biomass and 460 MMBtu/hr on fossil fuels. Each boiler will produce approximately 440,000 lbs/hr of steam at 1,500 pounds per square inch gauge (psig) and 950°F. Particulate matter, nitrogen oxides, and mercury emissions from each boiler will be controlled by Flakt, Inc. (or equivalent) electrostatic precipitator, Thermal DeNO$_x$ (or equivalent) selective non-catalytic reduction system, and an activated carbon injection (or equivalent) system, respectively. Auxiliary equipment includes feed and ash handling systems, steam turbines and condensers, electric generators, cooling towers, and stacks that are 7.0 ft in diameter and, a minimum of 180 ft. high.

Specific Conditions

1. Construction of the proposed cogeneration facility shall reasonably conform to the plans described in the application or permit. The facility shall be designed, constructed, and operated so that its gross generating capacity shall not exceed 65 megawatt (MW), 1 hour average, except during scheduled emission compliance and equipment performance tests. Equipment performance testing in excess of 65 MW shall be limited to a total of 24 hours (cumulative) during the 180-day calendar period after initial firing of each boiler. The permittee shall provide the Department with engineering, monitoring, and reporting plans for the generation capacity of the facility within 30 days after the plans become available.

11. The proposed cogeneration facility steam generating units shall be constructed and operated in accordance with the capabilities and specifications described in the application or permit. The facility shall not exceed 65 (gross) megawatts generating capacity, 1 hour average, except during emission compliance and equipment performance tests. Equipment performance tests shall be limited to a 180 day calendar period after initial firing of each boiler. The maximum heat input rate for each steam generator shall not exceed 665 MMBtu/hr when burning 100 percent biomass and 460 MMBtu/hr when burning 100 percent No. 2 fuel oil or low sulfur coal. Maximum heat input to the entire facility (total of two boilers) shall not exceed 7.0×10^{12} Btu per year. Steam production of each boiler shall not exceed an average of 440,000 lbs/hr at 1,500 psig, 950°F.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the applicant of the amendment request/application and the parties listed below must be filed within 14 days of receipt of this amendment. Petitions filed by other persons must be filed within 14 days of the amendment issuance or within 14 days of their receipt of this amendment, whichever occurs first. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address and telephone number of each petitioner, the applicant's name and address, the Department 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 facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action;
(g) A statement of the relief sought by petitioner, stating precisely the action the petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this amendment. Persons whose substantial interests will be affected by any decision of the Department with regard to the request/application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this amendment in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

A copy of this letter must be filed with Permit No. AC 50-219795/PSD-FL-197 and shall become a part of that permit.

Sincerely,

Howard L. Rhodes

Howard L. Rhodes
Director
Division of Air Resources Management

HLR/WH/bjb

Attachment: Osceola Power L.P., March 28, 1994, letter

cc: David Knowles, SD
Isidore Goldman, SED
James Stormer, PBCHD
Jewell Harper, EPA
David Buff, KBN
John Bunyak, NPS

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this AMENDMENT and all copies were mailed by certified mail before the close of business on 4/12/94 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to 120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Barbara J. Pentwell 4/12/94
Clerk Date

Florida Department of
Environmental Protection

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

Lawton Chiles
Governor

Virginia B. Wetherell
Secretary

PERMITTEE:
Okeelanta Power Limited Partnership
P. O. Box 86
South Bay, FL 33493

Permit Number: AC50-219413
PSD-FL-196
Expiration Date: July 1, 1996
County: Palm Beach
Latitude/Longitude: 26°35'00"N
80°45'00"W
Project: Cogeneration Facility

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-210, 212, 272, 275, 296, and 297; and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and specifically described as follows:

A 74.9 megawatt (gross) electric, (1-hour average), cogeneration facility (biomass--bagasse and wood waste material as the primary fuel, No. 2 fuel oil as a supplementary fuel, and low sulfur coal as an alternate fuel) located at Okeelanta Corporation's sugar mill that is 6 miles south of South Bay, off U.S. Highway 27, Palm Beach County, Florida. The cogeneration facility contains three Zurn spreader-stoker or equivalent steam boilers with a design heat input for each boiler of 715 MMBtu/hr on biomass and 490 MMBtu/hr on fossil fuels. Each boiler will produce approximately 455,400 lbs/hr of steam at 1,500 psig and 975°F. Particulate matter, nitrogen oxides, and mercury emissions from each boiler will be controlled by Research-Cottrell (or equivalent) electrostatic precipitator, Thermal DeNO$_X$ (or equivalent) selective non-catalytic reduction system, and an activated carbon injection system (or equivalent), respectively. Auxiliary equipment includes feed and ash handling systems, steam turbines and condensers, electric generators, cooling towers, and stacks that are 8.0 ft. in diameter and a minimum 199 ft. high.

The UTM coordinates of this facility are Zone 17, 524.9 km E and 2940.1 km N.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:
1. Application received September 30, 1992.
2. DER letter dated November 3, 1992.
3. KBN letter dated December 4, 1992.
4. Carlton letter dated December 23, 1992.
5. KBN letter dated February 17, 1993.
6. KBN letter dated May 25, 1993.
7. KBN letter dated July 2, 1993.
8. KBN letter dated August 11, 1993.

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a

GENERAL CONDITIONS:

reasonable time, access to the premises, where the permitted activity is located or conducted to:

a. Have access to and copy any records that must be kept under the conditions of the permit;

b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

a. a description of and cause of non-compliance; and

b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

GENERAL CONDITIONS:

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

(x) Determination of Best Available Control Technology (BACT)
(x) Determination of Prevention of Significant Deterioration (PSD)
(x) Compliance with New Source Performance Standards (NSPS)

14. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

GENERAL CONDITIONS:

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

Construction Details

1. Construction of the proposed cogeneration facility shall reasonably conform to the plans described in the application. The facility shall be designed, constructed, and operated so that its gross generating capacity shall not exceed 74.9 megawatt (MW), 1-hour average, except during scheduled emission compliance and equipment performance tests. Equipment performance testing in excess of 74.9 shall be limited to a total of 24 hours (cumulative) during the 180-day calendar period after initial firing of each boiler.

The permittee shall provide detailed engineering plans, 30 days after they become available, demonstrating that the steam electric generating system will not produce more than 74.9 MW at design maximum steam conditions. Such demonstration may include plans for installation of a steam pressure relief valve. If the steam electric generating system is designed with a pressure relief valve, such valve shall be installed and maintained as a requirement of this permit.

2. Boilers No. 1, 2 and 3 shall be of the spreader stoker type with a maximum heat input of 715 MMBtu/hr with biomass fuel and 490 MMBtu/hr with fossil fuels.

3. Each boiler shall have an individual stack, and each stack must have a minimum height of 199 feet. The stack sampling facilities for each stack must comply with F.A.C. Rule 17-297.345.

4. Each boiler shall be equipped with instruments to measure the fuel feed rate, steam production, steam pressure, and steam temperature.

5. Each boiler shall be equipped with a:

-Electrostatic precipitator (ESP) designed for at least 98 percent removal of particulate matter;
-Selective non-catalytic reduction (SNCR) system designed for at least 40 percent removal of NO_x; and
-Carbon injection system (or equivalent) for mercury emissions control.

SPECIFIC CONDITIONS:

6. The permittee shall install and operate continuous monitoring devices for each main boiler exhaust for opacity, nitrogen oxides (NO_x), sulfur dioxide (SO_2), oxygen (O_2), and carbon monoxide (CO).

The monitoring devices shall meet the applicable requirements of Section 17-297.500, F.A.C., and 40 CFR 60.47a. The opacity monitor shall be placed in the duct work between the electrostatic precipitator and the stack or in the stack.

An oxygen meter shall be installed for each unit to continuously monitor a representative sample of the flue gas. The oxygen monitor shall be used with automatic feedback or manual controls to continuously maintain air/fuel ratio parameters at an optimum. Operating procedures shall be established based on the initial emission compliance tests required by Specific Condition No. 21 below. The document "Use of Flue Gas Oxygen Meter as BACT for Combustion Controls" shall be used as a guide. An operating plan shall be submitted to the Department within 90 days of completion of such tests.

7. For the electrostatic precipitator, the selective non-catalytic reduction process (SNCR), and the activated carbon injection mercury control system (equivalent controls allowed):

a. The permittee shall submit to the Department copies of technical data pertaining to the selected PM, NO_x, and mercury emission controls within thirty (30) days after it becomes available. These data should include, but not be limited to, guaranteed efficiency and emission rates and major design parameters.

8. For the fly ash handling and mercury control system reactant storage systems:

a. The particulate matter filter control system for the storage silos shall be designed to achieve a 0.01 gr/acf outlet dust loading. The permittee must submit to the Department copies of technical data pertaining to the selected particulate emissions control for the mercury control system reactant storage silos within thirty (30) days after it becomes available. These data should include, but not be limited to, guaranteed efficiency, emission rates, and major design parameters.

b. The fly ash handling system (including transfer points and storage bin) shall be enclosed. The ash shall be wetted in the ash conditioner to minimize fugitive dust prior to it being discharged into the disposal bin.

SPECIFIC CONDITIONS:

9. Prior to operation of the source, the permittee shall submit to the Department an operation and maintenance plan that will allow the permittee to monitor emission control equipment efficiency and enable the permittee to return malfunctioning equipment to proper operation as expeditiously as possible.

10. During land clearing and site preparation, wetting operations or other soil treatment techniques appropriate for controlling unconfined particulates, including grass seeding and mulching of disturbed areas, shall be undertaken and implemented. Any open burning of land clearing debris on this site shall be performed in compliance with Department regulations.

Operational and Emission Restrictions

11. The proposed cogeneration facility steam generating units shall be constructed and operated in accordance with the capabilities and specifications described in the application. The facility shall not exceed 74.9 (gross) megawatt generating capacity, 1 hour average, except during emission compliance and equipment performance tests. Equipment performance testing shall be limited to a 180-day calendar period after initial firing of each boiler. The hourly average generation rate shall be recorded in a log and the log retained for at least 2 years. The maximum heat input rate for each steam generator shall not exceed 715 MMBtu/hr when burning 100 percent biomass and 490 MMBtu/hr when burning 100 percent No. 2 fuel oil or low sulfur coal. Maximum heat input to the entire facility (total all three boilers) shall not exceed 11.5 x 10^{12} Btu per year. Steam production of each boiler shall not exceed an average of 455,418 lbs/hr at 1,500 psig, 975°F.

12. The primary fuel for the facility shall be biomass--bagasse and wood waste material. Authorized wood waste material is clean construction and demolition wood debris, yard trash, land clearing debris, and other clean cellulose and vegetative matter.

The biomass fuel used at the cogeneration facility shall not contain hazardous substances, hazardous wastes, biomedical wastes, or garbage. The fuel used at the cogeneration facility shall not contain special wastes, except wood, lumber, trees, tree remains, bagasse, cane tops and leaves, and other clean vegetative and cellulose matter.

The permittee shall perform a daily visual inspection of any wood waste or similar vegetative matter that has been delivered to the facility for use as fuel. Any shipment observed to contain prohibited materials shall not be used as fuel, unless such materials can be readily segregated and removed from the wood waste and vegetative matter.

SPECIFIC CONDITIONS:

The permittee shall design and implement a management and testing program for the wood waste and other materials delivered to the facility for fuel. The program shall be designed to keep painted and chemically treated wood, household garbage, toxic or hazardous non-biomass and non-combustible waste material, from being burned at this plant. This program shall be submitted to the Department's Bureau of Air Regulation for review and approval at least 60 days before the commencement of operations of the cogeneration facility. At a minimum, the program shall provide for the routine inspection and/or testing of the fuel at the originating wood yard sites as well as at the cogeneration site, to ensure that the quantities of painted or chemically treated wood in the fuel are minimized. Fuel scheduled for burning shall be inspected daily. Fuel tests shall be conducted weekly for the first year of operations at the facility and monthly thereafter, if the Department determines on the basis of the prior test results that less frequent testing is appropriate. A representative sample of ash for the biomass burned during each month for the first year of operation shall be analyzed for copper, chromium and arsenic by appropriate analytical procedures per 40 CFR 261, Appendix III, described in SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods. Wood waste containing more than 70.7 ppm arsenic or 83.3 ppm chromium or 62.8 ppm copper shall not be burned based on an analysis of a composite sample.

13. Any fuel oil burned in the facility shall be "new" No. 2 fuel oil with a maximum sulfur content of 0.05 percent sulfur as determined by the appropriate test method listed in 40 CFR 60.17. "New" oil means an oil which has been refined from crude oil and has not been used in any manner that may contaminate it.

14. Any coal burned in the facility shall be low sulfur coal with a maximum sulfur content of 0.70 percent and a maximum potential emission equivalent to 1.2 lb SO_2/MMBtu.

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 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.

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_2 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_2 emissions and 12-month rolling average shall be determined (in tons) and kept in a log.

SPECIFIC CONDITIONS:

17. During the first three years of commercial cogeneration facility operation, the existing Boilers Nos. 4, 5, 6, 10, 11, 12, 14, and 15 (Permit Nos. AO50-169210, 190690, 175414, 190693, 175411, 169215, 189904, and 209094, respectively) may be retained for standby operation. During the period from initial firing to commercial operation, all three cogeneration boilers can be operated simultaneously with the existing boilers. Only biomass and No. 2 fuel oil may be used in the cogeneration boilers during this period. If more than 910,836 lb/hr steam is generated in the cogeneration boilers, steam in excess of 910,836 lb/hr must be sent to the Okeelanta sugar mill, and the existing boiler's steam production reduced by an equivalent amount. This period shall not exceed a total duration of 12 months. During this 12-month period, simultaneous operation of the existing boilers and the cogeneration boilers shall not occur on more than a total of 90 calendar days. After the first year of cogeneration facility operation, the existing boilers may be operated only when all three cogeneration boilers are shutdown. During operation, the existing boilers must meet all requirements in the most recent construction and operation permits for the boilers. These existing boilers shall be shutdown and rendered incapable of operation within three (3) years of commercial startup of the cogeneration facility, but no later than January 1, 1999.

18. Boiler No. 16 (AC50-191876) may be retained as a standby boiler for the cogeneration facility provided its permit is amended to authorize standby use. Boiler No. 16 may be operated during initial startup, debugging, and testing of the cogeneration facility for a period not to exceed 12 months following initial firing of fuel in the new boilers. After the first year of cogeneration operation, this boiler may be operated only when one or more of the three cogeneration boilers are shutdown. During operation, this boiler must meet all requirements in the current construction or operating permit for the boiler.

19. For the biomass, coal, fly ash, and mercury control system reactant handling facilities:

a. All conveyors and conveyor transfer points shall be enclosed to preclude PM emissions (except those directly associated with the stacker/reclaimers, for which enclosure is operationally infeasible).

b. Inactive coal storage piles shall be shaped, compacted, and oriented to minimize wind erosion. Sod, wetting agents, synthetic or other appropriate materials shall be used to cover those portions of the inactive coal pile that are prone to wind or water erosion.

SPECIFIC CONDITIONS:

c. Water sprays or chemical wetting agents and stabilizers shall be applied to storage piles, handling equipment, unenclosed transfer points, etc. during dry periods and as necessary to all facilities to maintain an opacity of less than or equal to 5 percent, except when adding, moving or removing coal from the coal pile, which would be allowed no more than 20 percent opacity.

d. The mercury control system reactant storage silos shall be maintained at a negative pressure while operating with the exhaust vented to a filter control system. Particulate matter emissions from each of the three silos shall not exceed a visible emission reading of 5 percent opacity. A visible emission test is to be performed annually on each silo.

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:

	Emission Limit (per boiler)[d]						Total All[e] Three Boilers
	Biomass		No. 2 Oil		Bit. Coal		
Pollutant	(lb/MMBtu)	(lb/hr)	(lb/MMBtu)	(lb/hr)	(lb/MMBtu)	(lb/hr)	(TPY)
Particulate (TSP)	0.03	21.5	0.03	14.7	0.03	14.7	172.5
Particulate (PM_{10})	0.03	21.5	0.03	14.7	0.03	14.7	172.5
Sulfur Dioxide							
3-hour average	---	---	---	---	1.2	588.0	---
24-hour average	0.10	71.5	0.05	24.5	1.2	588.0	---
Annual average	0.02[a]	---	---	---	1.2[a]	---	1,154.3[f]
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							
8-hour average	0.35	250.3	0.2	98.0	0.2	98.0	2,012.5
Volatile Organic Compounds	0.06	42.9	0.03	14.7	0.03	14.7	345.0
Lead	2.5×10^{-5}	0.018	8.9×10^{-7}	0.0004	6.4×10^{-5}	0.031	0.17
Mercury	6.3×10^{-6}[b] 0.29×10^{-6}[c]	0.0045[b] 0.00021[c]	2.4×10^{-6}	0.00118	8.4×10^{-6}	0.0041	0.0300

SPECIFIC CONDITIONS:

Beryllium	---	---	3.5×10^{-7}	0.00017	5.9×10^{-6}	0.0029	0.0052
Fluorides	---	---	6.3×10^{-6}	0.003	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% of total heat input on a calendar quarter basis, coal to 73,714 tons during any 12-month period, and the combination of oil and coal to less than 25% of the total heat input on a calendar quarter basis.
[f]Compliance based on a 12-month rolling average.

The permittee shall comply with the excess emissions rule contained in F.A.C. Rule 17-210.700. 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.

Compliance Requirements

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.

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), or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants), or any other method as approved by the

SPECIFIC CONDITIONS:

Department, in accordance with F.A.C. Rule 17-297.620. A test protocol shall be submitted for approval to the Bureau of Air Regulation at least 90 days prior to testing.

EPA Method*	For Determination of
1	Selection of sample site and velocity traverses.
2	Stack gas flow rate when converting concentrations to or from mass emission limits.
3 or 3A	Gas analysis when needed for calculation of molecular weight or percent O_2.
4	Moisture content when converting stack velocity to dry volumetric flow rate for use in converting concentrations in dry gases to or from mass emission limits.
5	Particulate matter concentration and mass emissions.
201 or 201A	PM_{10} emissions.
6, 6C, or 19	Sulfur dioxide emissions from stationary sources.
7 or 7E	Nitrogen oxide emissions from stationary sources.
8	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.

SPECIFIC CONDITIONS:

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.

22. Emission compliance tests shall be conducted under such conditions as the Department shall specify based on representative performance of the facility. The permittee shall make available to the Department such records as may be necessary to determine the conditions of the emission compliance tests.

23. The permittee shall provide 30 days notice of the equipment performance tests or 15 working days for stack tests in order to afford the Department the opportunity to have an observer present.

24. Stack tests for particulates, NO_x, SO_2, sulfuric acid mist, CO, VOC, lead, mercury, beryllium, fluorides, arsenic, chromium, copper, and visible emissions shall be performed once every six months during the first two years of facility operation in accordance with Specific Conditions Nos. 21, 22, and 23 above. If the test results for the first two years of operation indicate the facility is operating in compliance with the terms of approval and of applicable permits and regulations, the tests will thereafter occur according to the following schedule:

-Annually for particulates, sulfur dioxide,* sulfuric acid mist,* NO_x, CO, VOC, mercury, arsenic, chromium, copper and visible emissions.
-Once every five years (at permit renewal time) for SO_2, sulfuric acid mist, lead, beryllium, and fluorides.

*Test required only during years coal is burned in the boilers.

25. After conducting the initial stack tests required under Specific Condition No. 24 above, a fuel management plan shall be submitted to the Department and Palm Beach County within 90 days specifying the fuel types and fuel quantities to be burned in the facility in order to not exceed the facility annual mercury, lead, beryllium, and fluorides emission limits specified in Condition 20

SPECIFIC CONDITIONS:

above. The plan shall include mercury emission factors based on stack testing, and may include revised mercury emission factors and baseline emission estimates for the existing Okeelanta facility.

Reporting Requirements

26. Stack monitoring, fuel usage, and fuel analysis data shall be reported to the Department's South and Southeast District Offices and to the Palm Beach County Health Unit on a quarterly basis commencing with the start of commercial operation in accordance with 40 CFR, Part 60, Sections 60.7 and 60.49a, and in accordance with Section 17-297.500, F.A.C.

27. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

28. An application for an operation permit must be submitted to the South District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-4.220).

Issued this 27 day
of September, 1993

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Virginia B. Wetherell

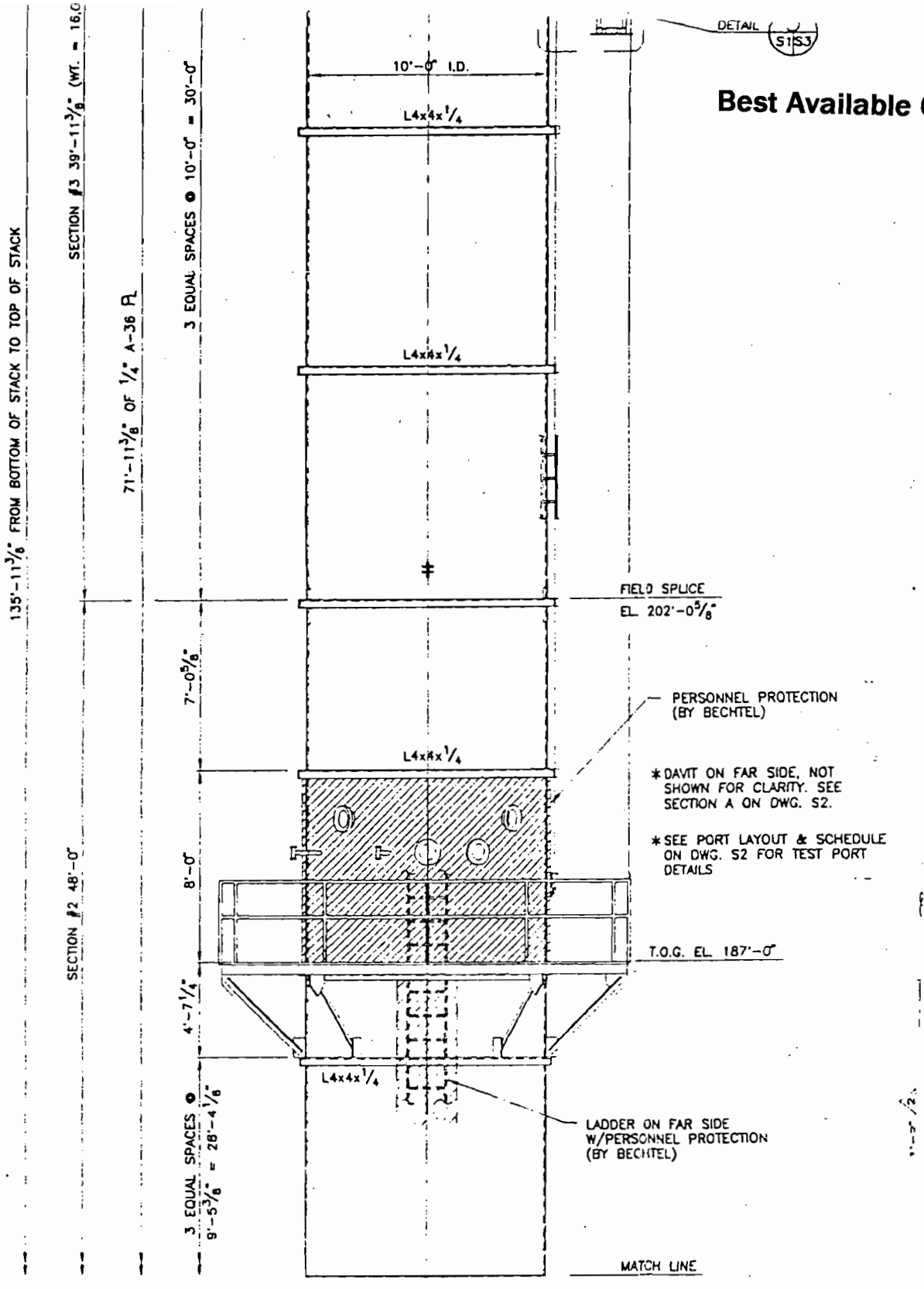
Virginia B. Wetherell, Secretary
Department of Environmental
Protection

Air Recon®
Division of
RECON Environmental Corp.

Raritan, NJ 08869-0130

ATTACHMENT 2

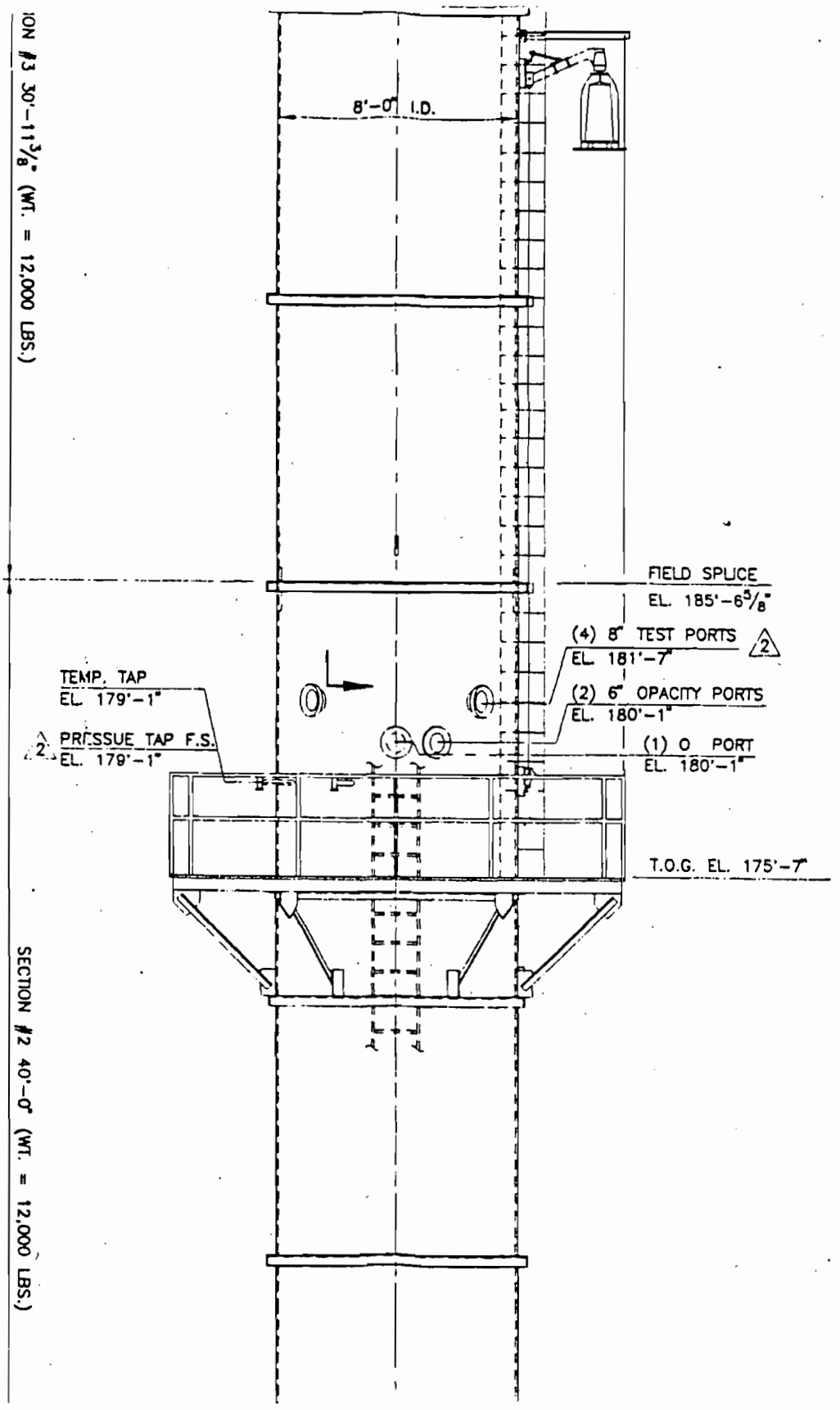
STACK DIAGRAMS



EAST STACK (AS SHOWN)
CENTER STACK (NO LIGHTS)
WEST STACK (LIGHT & TOP LADDER OPP. HAND)

ELEVATION

SCALE: 1/4" = 1'-0"



SECTION #3 30'-11 3/8" (WT. = 12,000 LBS.)

SECTION #2 40'-0" (WT. = 12,000 LBS.)

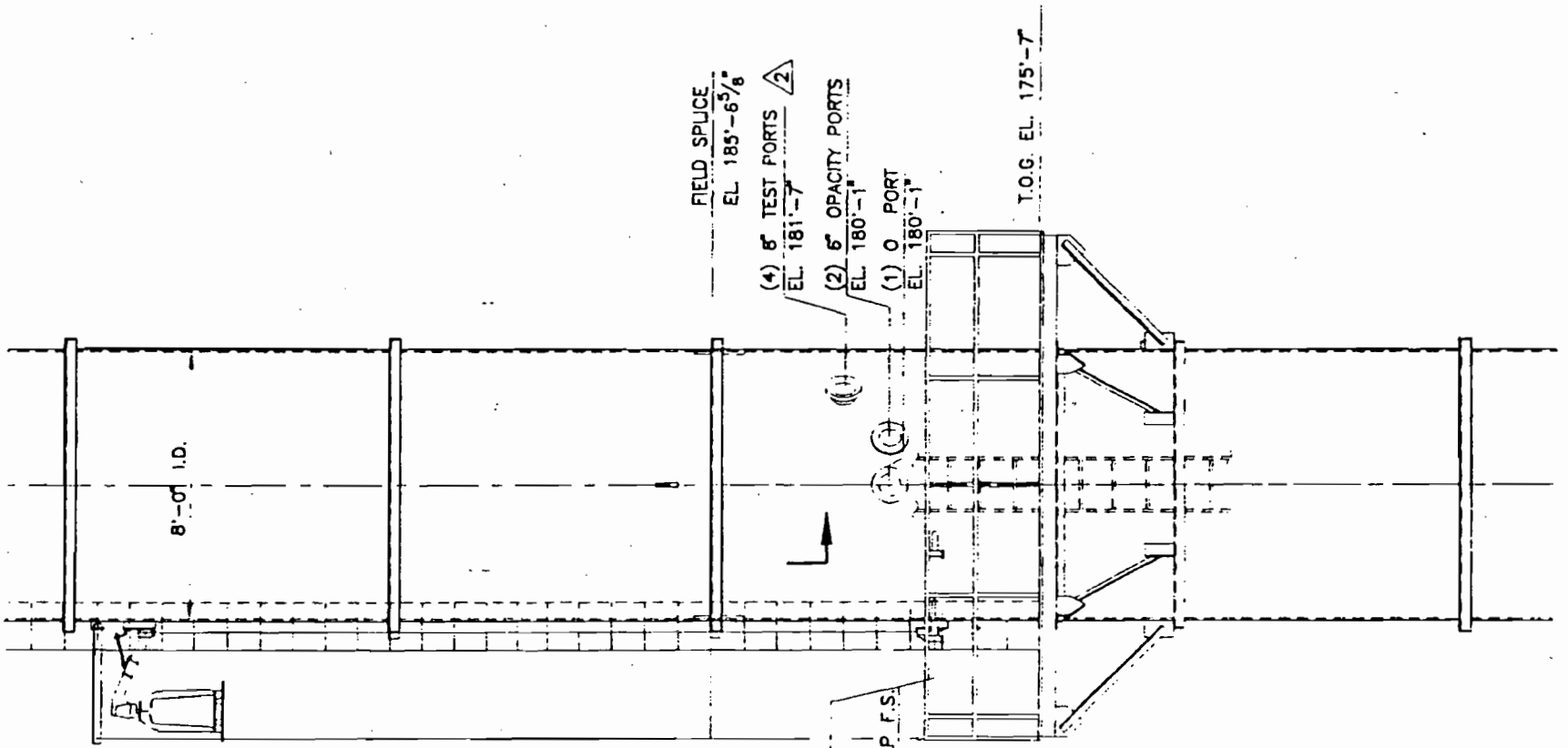
110'-11 3/8" FROM BOTTOM OF STACK TO

WEST STACK

SECTION #3 30'-11 3/8" (WT. = 12,000 LBS.)

SECTION #2 40'-0" (WT. = 12,000 LBS.)

110'-11 3/8" FROM BOTTOM OF ST.



SECTION #3 30'-11 3/8" (WT. = 12,000 LBS.)

SECTION #2 40'-0" (WT. = 12,000 LBS.)

110'-11 3/8" FROM BOTTOM OF S

EAST STACK

0104709

0990332-001-AC

OKEELANTA POWER LIMITED PARTNERSHIP

Flo-Sun, Inc.
U.S. Generating Company

September 22, 1995

RECEIVED
AIR-MAIL ROOM
1995 SEP 28 PM 12:21

Clair Fancy
Department of Environmental
Protection
Bureau of Air Regulation
2600 Blair Stone Road, MS 5505
Twin Towers Office Building
Tallahassee, Florida 32399

Re: Okeelanta Cogeneration Facility
(PSD-FL-196; AC50-219413)

Dear Mr. Fancy:

Okeelanta Power Limited Partnership (OPLP) is sending you this letter to formally request an amendment to the PSD permit (PSD-FL-196; AC50-219413) that was issued by the Florida Department of Environmental Protection (FDEP) for the Okeelanta Cogeneration Facility (Facility). Over the years OPLP has worked closely with FDEP, the U. S. Environmental Protection Agency (EPA), and the other regulatory agencies to ensure that the construction and operation of its Facility will be in compliance with all of the applicable state and federal environmental regulations. In this spirit, OPLP now requests FDEP to amend the PSD permit for the Facility to ensure that OPLP is in compliance with the federal regulations contained in 40 C.F.R. 60, Subpart Ea.

Subpart Ea applies to certain facilities that combust "municipal-type solid waste" (MSW), which is defined in Section 60.51a as "household, commercial/retail, and/or institutional waste." The definition of "municipal solid waste" in Subpart Ea and the Code of Federal Regulations does not expressly refer to leaves, tree limbs or similar vegetative materials. Nonetheless, in the 1991 Federal Register notice for Subpart Ea, EPA indicated that "municipal solid waste" includes "yard wastes." 56 Federal Register 5490 (February 11, 1991). Since Okeelanta's fuel supply may include some cellulose and vegetative materials collected from residential, retail, commercial or institutional facilities, it appears that Subpart Ea may apply to Okeelanta's Facility.

Under Subpart Ea, Section 60.51a, Okeelanta's Facility would be classified as a "cofired combustor", which is defined as

> "a unit combusting MSW . . . with a non-MSW fuel and subject to a Federally enforceable permit limiting the unit to combusting a fuel feed stream, 30% or less of the weight of which is comprised, in aggregate, of MSW . . . "

OKEELANTA POWER LIMITED PARTNERSHIP

Flo-Sun, Inc.
U.S. Generating Company

P.O. BOX 117 SOUTH BAY, FL 33493

CLEWISTO SEP 1995 AM 33440

CERTIFIED

P 819 242 565

MAIL

SOUTH BAY FL SEP 22'95

SEP 1995 AM

33440

8150981 U.S.POSTAGE

Clair Fancy
Department of Environmental Protection
Bureau of Air Regulation
2600 Blair Stone Road, MS 5505
Twin Towers Office Building
Tallahassee, Florida 32399

Cofired combustors are subject to reporting and recordkeeping requirements, but are exempt from the other provisions of Subpart Ea. Section 60.50a (d). The initial report to FDEP from a cofired combustor must include "a copy of a Federally-enforceable permit limiting the maximum amount of MSW that may be combusted in the cofired combustor," expressed as a percentage of the aggregate fuel feed stream. Section 60.59a (a) (1).

The PSD permit for Okeelanta's Facility already contains many limitations on Okeelanta's fuel, including a prohibition on the use of garbage as fuel. However, there is no limitation on the percentage of "MSW" in the fuel, such as "yard wastes," or limbs, leaves; grass clippings, etc., from "household, commercial/retail and/or institutional" areas.

To ensure that Okeelanta's Facility is in compliance with Subpart Ea, FDEP should amend Okeelanta's PDS permit to include a specific limitation on the maximum amount of "MSW" that may be combusted. Specific Condition No. 12 of Okeelanta's PSD permit should be amended to include the following, underlined sentence:

> "The primary fuel for the facility shall be biomass--bagasse and wood waste material. Authorized wood waste material is clean construction and demolition debris, yard trash, land clearing debris, and other clean cellulose and vegetative matter.
>
> The biomass fuel used at the cogeneration facility shall not contain hazardous substances, hazardous wastes, biomedical wastes, or garbage. The fuel used at the cogeneration facility shall not contain special wastes, except wood, lumber, trees, tree remains, bagasse, cane tops and leaves, and other clean vegetative and cellulose matter. <u>In addition to the other restrictions contained in this paragraph, the fuel used at the cogeneration facility shall not contain more than 30% "municipal solid waste," as defined in 40 C.F.R. 60, Subpart Ea, 60.51a."</u>

We believe the PSD permit should adopt the definition of MSW by reference. We do not wish to quote or paraphrase the current definition of MSW because, based on our discussions with EPA, it is our understanding that the current definition will be amended within the next two months. The amended definition of MSW will exclude "clean wood," regardless of where the wood was collected. Thus, clean wood collected at residential, retail, commercial or institutional facilities will not be defined as MSW and will not be subject to the 30% limitation for MSW in cofired combustors. If the current definition is expressly set forth in the PSD permit for OPLP, the PSD permit will need to be amended again, after the new MWC regulations are adopted by EPA in November.

In any event, OPLP's request for a permit amendment is intended only to address the requirements of Subpart Ea. At this time OPLP is not attempting to amend its plan of operation, the Facility's emission levels, or any of the substantive requirements concerning the Facility.

To ensure compliance with Section 60.59a of Subpart Ea, we want to use this opportunity to advise FDEP that OPLP will begin to burn "MSW" in the Facility on or about October 2, 1995. The Facility is expected to begin commercial operations in November 1995. The Facility will not use coal for the foreseeable future, but the Facility will use all of the other fuels approved in the PSD permit, including bagasse, wood from construction and demolition debris, and pallets. The Facility will burn "MSW," as defined in Subpart Ea, such as limbs, leaves, grass clippings, yard trash, and other vegetative materials collected from households, commercial/retail and/or institutional facilities. While OPLP cannot determine the precise percentage of "MSW" that will be in its fuel, OPLP will not utilize more than 30% MSW in its fuel feed stream. In order to demonstrate compliance with 40 C.F.R. 60.59a (b) (14), OPLP shall submit a revised "Wood-Waste and Ash Sampling Plan" within 60 days of receiving the amended permit.

In light of the information provided above, Okeelanta Power Limited Partnership respectfully requests the Department to amend its PSD permit in the manner proposed herein. As you requested, we have enclosed a check in the amount of $50 to pay the FDEP fee for the permit amendment. Thank you for your cooperation and prompt assistance with this matter. If you have any questions please contact James Meriwether at (407) 993-1003.

Sincerely,

Dennis Space
Project Director

cc: J. Meriwether
D. Dee ⇒ Daniel (904) 681 03 11. Tallahassee.

bc: C. Staley
D. Schaberg
M. Griffin
M. Carney
S. Herman

OPLP File No. 6.3.1.5

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

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:
Dennis Space, Proj. Dir.
Okeelanta Power Ltd P5P
PO Box 117
South Bay, Fl 33493

4a. Article Number
Z 127 633 169

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

5. Signature (Addressee)

6. Signature (Agent)

7. Date of Delivery
2 20 96

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

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

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

Z 127 633 169

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

UNITED STATES POSTAL SERVICE

Sent to: Dennis Space	
Okeelanta Power LP	
P.O., State and 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, and Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 2-20-96	

AC 50-219413
PSD-FI-196(A)

PS Form 3800, March 1993

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
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- 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:
Dennis Space, Project Dir.
OKeelanta Power Ltd Ptsp.
P O Box 117
South Bay, Fl
33493

4a. Article Number
Z 127 633 217

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

7. Date of Delivery
12-20-95

5. Signature (Addressee)

6. Signature (Agent)

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

Thank you for using Return Receipt Service.

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

Z 127 633 217

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

UNITED STATES POSTAL SERVICE

Sent to Dennis Space	
Street and No. OKeelanta Power	
P.O., State and 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, and Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 12-11-95	
AC50-219413	
PSD-FL-196	

PS Form **3800**, March 1993

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:
Dennis Space, PD
Okeelanta Power, LP
PO Box 117
South Bay, FL 33493

4a. Article Number
Z 127 632 556

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

7. Date of Delivery
10-30-95

5. Signature (Addressee)

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

6. Signature (Agent)

PS Form **3811**, December 1991 ... 1993—352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

Z 127 632 556

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

UNITED STATES POSTAL SERVICE

Sent to: Dennis Space	
Street and No.: Okeelanta Power	
P.O., State and ZIP Code: S. Bay, FL	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date: 10-25-95	

AC50-219413
PSO-FL-196

PS Form **3800**, March 1993

Department of
Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

September 2, 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

Re: Permit Amendment No. 0990332-003-AC, PSD-FL-196A
Tire-Derived Fuel Performance Test

Dear Mr. Space:

The Department has reviewed the letter submitted by Golder Associates dated August 21, 1997 requesting an extension of Okeelanta's construction permit to allow a test burn of tire-derived fuel (TDF) at one boiler located at Okeelanta Power Limited Partnership cogeneration facility. This request is acceptable and the permit is hereby extended from April 1, 1998 to December 31, 1998.

A person whose substantial interests are affected by this permit amendment 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 receipt of this permit amendment. 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. Mediation is not available for this action.

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.

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 permit amendment. 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 permit amendment.

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.

This permit amendment is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 62-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit amendment will not be effective until further order of the Department.

When the Order (Permit Amendment) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, 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.

A copy of this letter shall be filed with the referenced permit and shall become part of the permit.

Sincerely,

for Howard L. Rhodes, Director
Division of Air Resources
Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this PERMIT AMENDMENT was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 9-5-97 to the person(s) listed:

Mr. Dennis Space, Okeelanta Power, LP*
Mr. David A. Buff, Golder Associates
Mr. David Knowles, SD
Mr. Brian Beals, EPA
Mr. John Bunyak, NPS
Mr. James Stormer, Palm Beach Co.
Mr. Isidore Goldman, SED
Mr. Dan Thompson, Esq.

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.

Kim Tatum 9-5-97
(clerk) (Date)

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

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 Space, Gen. Mgr.
OKeelanta Power, LP
PO Box 8
South Bay, Fl
33493

4a. Article Number
P 265 659 447

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

7. Date of Delivery

5. Received By: *(Print Name)*

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

6. Signature: *(Addressee or Agent)*
X G. Ambras

PS Form **3811,** December 1994 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

P 265 659 447

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 OKeelanta	
Post Office, State, & ZIP Code SB, 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 95-97	

PS Form **3800**, April 1995

0990332-003 AC
TDF

Golder Associates Inc.

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

August 21, 1997

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

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

Dear Mr. Fancy:

Okeelanta received a permit amendment on January 22, 1997, to allow a test burn of tire-derived fuel (TDF) at one boiler located at either Okeelanta or the Osceola Power Limited Partnership (Osceola) cogeneration facility. Specific Condition (S.C.) 11 of the amendment, as amended by letter dated May 13, 1997, extends the existing construction permit until April 1, 1998, in order to allow time to complete the test burn. The TDF performance test is required to be completed by August 31, 1997.

Due to a number of delays this year, and a focus on revising current permit conditions related to biomass firing, Okeelanta desires to postpone the TDF testing until sometime next year. At present, the dates of performance testing cannot be established. Once the pending issues are resolved, further plans to bring TDF on-site will be formulated, and performance testing will be scheduled and conducted (after proper notice to the FDEP).

Based on the above described schedule, it is requested that the TDF test burn authorization be extended until December 31, 1998. This date will allow Okeelanta flexibility is scheduling the performance testing and evaluating the test results.

Thank you for consideration of this request. A permit amendment fee in the amount of $50 is attached. Please call if you have any questions concerning this request.

Sincerely,

David A. Buff

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

DB/arz

cc: James Meriwether
File (2)

9737509A/3

If IMAGESAFE logo in light gray tone is not present on back of document - Do not cash.

22001

GOLDER ASSOCIATES GAINESVILLE
3730 SHAMBLEE TUCKER ROAD
ATLANTA, GA 30341

Aug 21 19 97

63-2/
00

PAY TO THE ORDER OF Florida Dept. of Environmental Protection $ 50.00

Fifty dollars & no/xx DOLLARS

FIRST UNION®
First Union National Bank
Gainesville, Florida
24 Hour Information Service
1-800-735-1012

FOR 973-7510 0500

David A. Buff

[redacted]

CLARKE AMERICAN BA
GUARDIAN ® SAFETY

Berger
Davis &
Singerman
Professional Association

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

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.

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

File

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

June 24, 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. James M. Meriwether
Environmental Manager
Okeelanta Power Limited Partnership
Post Office Box 8
South Bay, Florida 33493

Re: Tire Derived Fuel (TDF) Test Protocol
Okeelanta Power Cogeneration Plant
AIRS No. 0990332-003-AC (PSD-FL-196)

Dear Mr. Meriwether:

The Department has reviewed your June 13 TDF Performance Test Protocol submitted in response to Specific Condition No. 19 of the above referenced permit.

The Department approves the proposed test protocol. During the test, you are requested to keep any ash generated while burning TDF separate from the ash previously generated at this plant and coordinate its disposal with the Department's South District.

If you have any questions on this matter, please call Willard Hanks at 904/488-1344.

Sincerely,

, P.E.

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

HLR/wh/t

cc: David Knowles, SD
Jeff Koerner, PBCPHU

Memorandum

Florida Department of
Environmental Protection

O.K. send out
+ copy files.
AL

TO: Howard L. Rhodes

THRU: ~~Clair Fancy~~
Al Linero approved 6/23

FROM: Willard Hanks

DATE: June 25, 1997

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

Attached for approval and signature is a letter that will approve the tire derived fuel performance test protocol proposed by Okeelanta Power L.P. Approval of the test protocol is required by Specific Condition No. 19 of amended permit number AC50-2191413/PSD-FL-196 for Okeelanta Power's cogeneration plant located near South Bay, Palm Beach County.

This amendment allows emission and ash analysis data to be gathered while burning a blend of wood chips and tire derived fuel (TDF) to confirm this fuel can be burned in compliance with the existing permit and the Department's regulations. If data collected during the test burn confirms the fuel blend can be burned in compliance with all requirements, the construction permit will be amended again to allow this blended fuel to be burn on a continuous basis. Emission controls consist of electrostatic precipitators for control of particulate matter, selective non-catalytic reduction for nitrogen oxides, and carbon injection for mercury. The test may provide the Department with reasonable assurance that the plant can burn TDF without contravening Department standards, rules or permit conditions.

I recommend your approval and signature of the attached letter on the test protocol.

CHF/wh

Attachment

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:
James M. Meriwether, Env. Mgr.
Oleander Power, LP
P O Box 8
South Bay, Fl
33493

4a. Article Number
P 265 659 231

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

7. Date of Delivery
7/2/97

5. Received By: *(Print Name)*

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

6. Signature: *(Addressee or Agent)*
X Ambrus

PS Form **3811**, Decembe

Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

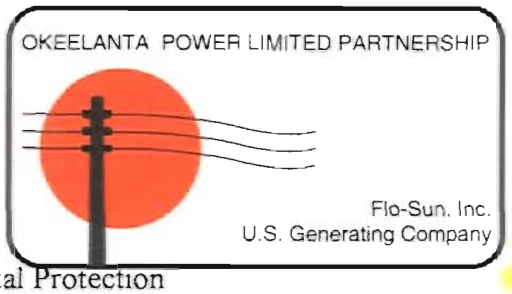
P 265 659 231

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

Sent to James M Meriwether	
Street & Number Oleander 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 6-24-97	

PS Form **3800**, April 1995

0990332005-AC
PSD-FI-196



June 13, 1997

State of Florida
Department of Environmental Protection
Twin Towers Office Building
Division of Air Resources Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

CLAIR - Pls. Handle thanks, Pat
xc: HLR 6/16

Attn: Mr. Howard L. Rhodes, Director
Division of Air Resources Management

Re: Okeelanta Power Limited Partnership
AIRS ID No. 0990332-003-AC, PSD-FL-196
Tire Derived Fuel Performance Test Protocols

Dear Mr. Rhodes:

On January 22, 1997 the Florida Department of Environmental Protection (FDEP) authorized a performance test at the Okeelanta or Osceola Cogeneration Plants while utilizing a blended fuel consisting of biomass and tire-derived fuel (TDF). The performance test will be conducted in order to gather data regarding air emissions, any operating limitations on burning a blend of TDF in the boiler, and to determine the metal content in the bottom and fly ash.

Condition #19 of the above referenced TDF Permit Amendment requests that a test protocol be submitted for approval prior to commencement of testing. The protocol must specify the pollutants to be tested and the sampling and analytical methods to be used for air, fuel and ash.

The TDF performance test will be conducted on one boiler at the Okeelanta Cogeneration Plant. The test protocols for air (Appendix A), fuel (Appendix B) and ash (Appendix C) are attached for your review and approval. If you have any questions please contact me at (561) 993-1003.

Sincerely,

James M. Meriwether
Environmental Manager

cc: C. H. Fancy - FDEP/Tallahassee
A. A. Linero - FDEP/Tallahassee
Willard Hanks - FDEP/Tallahassee
James Pennington - FDEP/Tallahassee
M. D. Harley - FDEP/Tallahassee
John M. Ruddell - FDEP/Tallahassee
William W. Hinkley - FDEP/Tallahassee
Mary Jean Yon - FDEP/Tallahassee
David M. Knowles - FDEP/South District
Philip Barbaccia - FDEP/South District
William F. Krumbholz - FDEP/South District
Charles Emery III - FDEP/South District
James E. Stormer - PBCHD
Ajaya K. Satyal - PBCHD
Jeffery Koerner - PBCHD
David Buff
Matt Capone
Andrew Carlin
Jim Carlton
Gus Cepero
David Dee
Michelle Golden
Michael Keegan
Ricardo Lima
Keith Mazur
Steve Pileski
Carlos Rionda
Jack Roberson
Steve Sorrentino
Bill Tarr
Rodney Williams

APPENDIX A

OKEELANTA POWER LIMITED PARTNERSHIP
TDF/BIOMASS PERFORMANCE TEST

Air Emission Test Parameters and Methodology

1.	Selection of sample site and velocity traverses	EPA Method 1
2.	Gas velocity and flow rate	EPA Method 2
3.	Oxygen, carbon dioxide, mol. wt.	EPA Method 3 or 3A
4.	Flue gas moisture	EPA Method 4
5.	Total suspended particulate (TSPP)	EPA Method 5
6.	PM_{10}	EPA Method 201 or 201A
7.	Nitrogen oxides	EPA Method 7 or 7E
8.	Sulfur dioxide	EPA Method 6, 6C, 8 or 19
9.	Sulfuric acid mist	EPA Method 8 (modified)
10.	Opacity	EPA Method 9
11.	Carbon monoxide	EPA Method 10
12.	Volatile organic compounds	EPA Method 18, 25 or 25A
13.	Fluoride	EPA Method 13A or 13B
14.	Lead	EPA Method 29
15.	Mercury	EPA Method 29
16.	Beryllium	EPA Method 29
17.	Arsenic	EPA Method 29
18.	Chromium/Copper	EPA Method 29
19.	Cadmium	EPA Method 29
20.	Zinc oxide	EPA Method 29
21.	Hydrochloric acid	EPA Method 26 or 26A
22.	Benzene	EPA Method 18
23.	Dioxin/Furan	EPA Method 23
24.	PCB	EPA Method 23

APPENDIX B

OKEELANTA POWER LIMITED PARTNERSHIP
TDF/BIOMASS PERFORMANCE TEST

Fuel Sampling and Analytical Methodology

1. One (1) as-fired fuel sample (blend of biomass and TDF) will be collected each day from the fuel conveyor belt prior to the feeders and composited into a weekly sample for analysis. This sampling schedule will be followed throughout the blended fuel test burn period. The weekly composite sample will be analyzed for the constituents listed in the "Metals Table" below.

2. During the Seven-Day Ash Test a total of three (3) as-fired fuel samples (blend of biomass and TDF) will be collected each day from the fuel conveyor belt prior to the feeders and composited into a daily sample for analysis. The seven (7) composite fuel samples will be analyzed for the constituents listed in the "Metals Table" below.

3. During the PM_{10} emission tests a total of one (1) as-fired fuel sample (blend of biomass and TDF) will be collected from the fuel conveyor belt prior to the feeders during each of the three emissions test and composited into one (1) sample and analyzed for the constituents listed in the "Metals Table" below.

Metals Table

Fuel samples will be analyzed using the SW-846 Method 3050 (Metals Digestion Procedure). Following digestion the individual metals will be analyzed as per the corresponding method below. In addition, the fuel samples (blend of biomass and TDF) will be reduced in size to pass through a #60 mesh screen prior to analysis.

A.	Arsenic	Method 7060	F.	Lead	Method 7421
B.	Beryllium	Method 6010	G.	Mercury	Method 7471
C.	Cadmium	Method 6010	H.	Selenium	Method 7740
D.	Chromium	Method 6010	I.	Silver	Method 6010
E.	Copper	Method 6010	J.	Zinc oxide	Method 6010

APPENDIX C

OKEELANTA POWER LIMITED PARTNERSHIP
TDF/BIOMASS PERFORMANCE TEST

Ash Sampling and Analytical Methodology

1. One (1) sample of fly ash and one (1) sample of bottom ash will be collected each day at the points of generation and composited into weekly bottom and fly ash samples for analysis. This sampling schedule will be followed throughout the blended fuel test burn period. The weekly composite sample will be analyzed for the constituents listed in the "Metals Table" below.

2. During the PM_{10} emission tests a total of one (1) fly ash sample and one (1) bottom ash sample will be collected at the points of generation during each of the three emissions tests and composited into bottom and fly ash samples and analyzed for the constituents listed in the "Metals Table" below.

3. Fly ash and bottom ash samples will also be collected at the points of generation during the blended fuel test burn period and analyzed in accordance with EPA Pub. No. EPA530-R-95-036, "Guidance For The Sampling and Analysis Of Municipal Waste Combustion Ash For The Toxicity Characteristic", June 1995. Composite samples of fly and bottom ash will be analyzed for the constituents in the "Metals Table" below. The constituents in the "Metals Table" will also be analyzed using the Toxicity Characteristic Leaching Procedure (TCLP, Method 1311 of SW-846).

4. Two (2) composite samples each of fly ash and bottom ash will be collected at the beginning of the Seven Day Ash Test and analyzed for the organic constituents listed in 40 CFR 261.24 Table 1 using SW-846 Test Method 1311 (TCLP). If organic constituents are present, then the remainder of composite ash samples will be analyzed in the same manner.

5. Two (2) composite samples each of fly ash and bottom ash will be collected at the beginning of the Seven Day Ash Test and analyzed for those PCDD/PCDF constituents listed in SW-846 Test Method 8290. The ash samples will be analyzed using SW-846 Test Method 8290.

Metals Table

Fly ash and bottom ash will be analyzed using the SW-846 Method 3050 (Metals Digestion Procedure). Following digestion the individual metals will be analyzed as per the corresponding method below.

A.	Arsenic	Method 7060	F.	Lead	Method 7421
B.	Beryllium	Method 6010	G.	Mercury	Method 7471
C.	Cadmium	Method 6010	H.	Selenium	Method 7740
D.	Chromium	Method 6010	I.	Silver	Method 6010
E.	Copper	Method 6010	J.	Zinc oxide	Method 6010

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

May 13, 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: Completion Date Extension - TDF Tests
Permit AC50-219413/PSD-FL-196
File No. 0990332-003-AC

Dear Mr. Space:

The Department has reviewed Golder Associates' April 23 letter requesting extension of the time provided in the Amendment dated January 22 to conduct tests while burning tire derived fuel at your cogeneration boilers located near South Bay in Palm Beach County. This request is acceptable and the construction permit expiration date is also amended consistent with the recent extension of time for use of the existing boilers at the sugar mill as follows:

Specific Condition No. 11 of Letter Amendment

FROM:

The existing construction permit is extended until July 1, 1997 to allow time to complete the performance test. If additional time is needed, the permittee shall request an extension of time and provide the Department with documentation of the progress accomplished to date and shall identify the work required to complete the performance test.

TO:

The existing construction permit is extended until April 1, 1998. The tire derived fuel performance test shall be completed by August 31, 1997. If additional time is needed, the permittee shall request an extension of time and provide the Department with documentation of the progress accomplished to date and shall identify the work required to complete the performance test.

A person whose substantial interests are affected by this permit amendment 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: 904/488-9730, fax: 904/487-4938. Petitions must be filed within fourteen days of receipt of this permit amendment. 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.

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 permit amendment. 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.

This permit amendment is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 62-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit amendment will not be effective until further order of the Department.

When the Order (Permit Amendment) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, 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.

A copy of this letter shall be filed with the referenced permit and shall become part of the permit.

Sincerely,

for Howard L. Rhodes, Director
Division of Air Resources
Management

HLR/wh/l

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this AMENDMENT was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 5-13-97 to the person(s) listed:

Mr. Dennis Space, Okeelanta Power L.P. *
Mr. David Knowles, SD
Mr. James Stormer, 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.

Lori Dober 5-13-97
(Clerk) (Date)

Fold at line over top of envelope to

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.
Okeelanta Power, LP
P O Box 8
South Bay, FL
33493

4a. Article Number
P 265 659 215

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

7. Date of Delivery
5-20-97

5. Received By: *(Print Name)*

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

6. Signature: *(Addressee or Agent)*
X G. Ambrus

PS Form **3811,** December 1994 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

P 265 659 215

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 Okeelanta 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 0990332-003-AC 5-13-97 Date Ext.	

PS Form **3800,** April 1995

Memorandum

Florida Department of
Environmental Protection

TO: Howard L. Rhodes

THRU: Clair Fancy
Al Linero

FROM: Willard Hanks

DATE: May 12, 1997

SUBJECT: Okeelanta Power LP
TDF Test Burn Amendment

Attached for your approval and signature is a letter that will amend the construction permit for Okeelanta Power's cogeneration plant located near South Bay in Palm Beach County. The amendment changes the approved schedule for the tire derived fuel test burn at this facility. The requested test completion date is August 31, 1997.

The facility's construction permit was extended by rule which then allows operation while the Title V permit application is considered. Activities related to startup, shakedown, etc. continue at the facility. Therefore, we are extending the construction permit to conform to the recent extensions we granted allowing continued operation of the old sugar mill boilers until the cogen plant becomes fully operational.

I recommend your signature and approval.

CHF/wh

Attachment

OKEELANTA POWER LIMITED PARTNERSHIP

Flo-Sun, Inc.
U.S. Generating Company

RECEIVED
MAY 08 1997
BUREAU OF
AIR REGULATION

May 6, 1997

State of Florida
Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Attn: Mr. A.A. Linero, P.E.
Administrator
New Source Review Section

Re: Okeelanta Power Limited Partnership
PSD-FL-196D, 0990332-003-AC

Dear Mr. Linero:

I am in receipt of your letter to Mr. David Buff of Golder Associates, dated April 30, 1997, which requests a $50.00 fee to process the requested permit amendment. The amendment would extend the expiration date of the above listed permit to allow time to conduct the tire derived fuel (TDF) test burn. Please see enclosed check #5457 in the amount of $50.00 to cover the processing fee. If you have any questions please contact me at (561) 993-1003.

Sincerely,

James M. Meriwether
Environmental Manager

cc: Ricardo Lima
Jerome Ketterling
David Buff
David Dee

54

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: **********Fifty dollars and no cents

DATE	CHECK NO.	AMOUNT
5/05/97	5457	$**********50.0

PAY
TO THE
ORDER
OF

Dept. of Environmental Protect
Bureau of Finance and Accounting
P. O. Box 3070
Tallahassee, FL 32315-3070

[redacted]

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

April 30, 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

Re Osceola Power, L.P. PSD-FL-197D 0990331-003-AC
Okeelanta Power, L.P. PSD-FL196D 0990332-003-AC

Dear Mr. Buff:

The Bureau of Air Regulation received your requests dated April 23, 1997 to extend the expiration dates of the above listed permits to allow time to conduct the tire derived fuel (TDF) test burn. Before we can begin processing these requests, we will need a $50 processing fee for each permit extension ($100 total). If you have any questions, please call Willard Hanks at (904) 488-1344.

Sincerely,

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

AAL/wh

cc: Mr. Don Schaberg, OsPLP
Mr. Dennis Space, OkPLP

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. DAVID A. Buff, P.E.
GOLDER ASSOCIATES
6241 NW 23rd St. Suite 500
Gainesville, FL 32653-1500

4a. Article Number
P 265 659 198

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

7. Date of Delivery
5/2/97

5. Received By: *(Print Name)*

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

6. Signature: *(Addressee or Agent)*
X M. Reinert

PS Form **3811,** December 1994 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

P 265 659 198

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

Sent to DAVID A. BUFF	
Street & Number 6241 NW 23rd St. Ste 500	
Post Office, State, & ZIP Code Gainesville, FL 32653-1500	
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 4-30-97	
Fee Request Osceola/Okeelanta 197D/196D	

PS Form **3800**, April 1995

Golder Associates Inc.

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

April 23, 1997

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

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

Dear Mr. Fancy:

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

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

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

Sincerely,

David A. Buff

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

DB/arz

cc: James Meriwether
File (2)

STATE OF FLORIDA REGISTERED ENGINEER DAVID A. BUFF

RECEIVED
APR 25 1997
BUREAU OF
AIR REGULATION

9737509A/2

Golder Associates Inc.

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

January 17, 1997

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

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

Dear Mr. Fancy:

OkPLP has received the draft permit amendment to allow a test burn of tire-derived fuel (TDF) at one boiler located at either OkPLP or the Osceola Power Limited Partnership (OsPLP) cogeneration facility. OkPLP is in agreement with the draft permit amendment conditions but would like to add further clarification in a few areas.

The first point concerns the wording in the second paragraph of the amendment letter, preceding the specific conditions. The wording states that OkPLP is authorized to conduct performance tests on one boiler. However, we would like to clarify that, due to the common fuel feed system for all three boilers at the OkPLP facility, the wood waste/TDF blend will be fired in all three boilers during the testing, although only one boiler will be performance tested. OkPLP is evaluating the fuel feed system to determine if it is feasible to fire only one boiler with the TDF blend. If this becomes feasible, OkPLP will fire only one boiler with the TDF blend during the performance testing. However, at present we would like to keep the options open in the event that all three boilers must be fired with the TDF blend.

In regards to Kathy Anderson's proposed rewording of Specific Condition 4 of the draft amendment letter, the rewording is acceptable except in regards to duplicate analysis of the ash for organics and PCDD/PCDF [Conditions 4(c) and 4(d)]. This duplicate analysis is considered unnecessary, particularly considering that organic constituents and PCDD/PCDF are not expected in the ash in high concentrations, and the extremely high cost of performing PCDD/PCDF analysis ($1,500 per sample). Therefore, we request that only one sample of each the bottom ash and fly ash be analyzed. In order to alleviate concerns over an invalid test result with only one sample, composite sample material will be retained for additional analysis. If the initial analysis results are considered to be invalid for some reason, an additional analysis could then be performed.

The last point is in regards to Specific Conditions 9 and 13 of the draft letter, which relates to calculating emissions changes for rule applicability. It is my understanding, based on Florida rules (i.e., definition of modification), that if the test burn demonstrates that the current permit limits for OkPLP are not exceeded, then a modification would not be triggered, and PSD review would not apply. Based on Florida rules, since the facility is under a construction permit and has not begun normal operations (i.e., no 2-year operating history), actual emissions would equal potential

(permitted) emissions. Therefore, if permitted emissions are not increased, then there will be no increase in actual emissions.

Thank you for consideration of these comments. Please call if you have any questions concerning this request.

Sincerely,

David A. Buff

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

SEAL

DB/vjp

cc: James Meriwether
File (2)

cc: Willard Hanks, BAR
SED
Palm Bch Co.

9737509A/01

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

In the Matter of an
Application for Permit Amendment

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

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

Enclosed is a letter that amends Permit Number PSD-FL-196. This letter amendment authorizes a performance test while burning Tire Derived Fuel (TDF) in the existing cogeneration plant located near South Bay, Palm Beach County, pursuant to 40 CFR 52.21-Prevention of Significant Deterioration (PSD permit). This permit amendment is issued pursuant to Section 403, Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 14 (fourteen) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

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

CERTIFICATE OF SERVICE

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

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

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

(Clerk) 1-22-97 (Date)

FINAL DETERMINATION

Okeelanta Power Limited Partnership

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

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

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

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

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

January 22, 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

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

Dear Mr. Space:

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

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

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

The performance test shall be subject to the following conditions:

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

2. The maximum TDF content of the fuel shall not exceed 25 percent by weight. Performance testing shall be conducted in 60 calendar days and completed within 90 days of when the TDF is first introduced into the boiler.

3. Stack emissions due to TDF firing shall not exceed any limit for coal burning in the construction permit No. PSD-FL-196 for this unit.

4. To provide reasonable assurance that this fuel blend can be burned in compliance with the air regulations, as-burned fuel samples (biomass and TDF), bottom ash, and fly ash shall be collected and analyzed for total metals content (selenium, silver, chromium, copper, arsenic, cadmium, zinc oxide, mercury, lead, and beryllium) throughout the test burn of the blended fuel. Weekly composite of daily samples shall be required as well as analyses of a composite sample collected during the particulate matter tests.

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

   a) Representative samples shall account for variability in both the fly and bottom ash. The US EPA's June 1995 protocol entitled "Guidance For Sampling and Analysis of Municipal Waste Combustion Ash For the Toxicity Characteristic" shall be used as guidance for collecting, handling, storing and analyzing a representative sample.

   b) Representative composite samples of fly and bottom ash shall be analyzed for arsenic, beryllium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc oxide using SW-846 test method 1311 (TCLP) and 3050 (total metals digestion).

   c) A minimum of two composite samples each of fly and bottom ash shall be collected and analyzed at the beginning of the sampling event for organic constituents listed in 40 CFR 261.24 Table 1 using SW-846 test method 1311 (TCLP). If organic constituents are present, then the remainder of the composite samples collected shall be analyzed for organic constituents listed in 40 CFR 261.24 Table 1 using SW-846 test method 1311 (TCLP).

   d) A minimum of two composite samples of each of the fly and bottom ash, shall be collected and analyzed at the beginning of the sampling event for those PCDD/PCDF constituents listed in SW-846 test method 8290. The ash samples shall be analyzed using SW-846 test method 8290.

   e) Daily composite samples of the blended fuel, wood waste mixed with TDF, shall be collected during the ash sampling period and analyzed for arsenic, beryllium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc oxide using SW-846 test method 3050. The blended fuel mixture, wood waste and TDF, samples shall be blended and reduced in size to pass through a #60 mesh screen prior to analysis of specific chemicals.

5. A material balance of the metals in the fuel, emissions, bottom ash and fly ash shall be performed and reported based on all test/analytical data.

6. The maximum feed rate of tires to each boiler at the Okeelanta cogeneration plant shall not exceed 21,030 pounds per hour or 25 percent by weight of the total feed rate, whichever is less.

7. Emissions tests shall be conducted and results reported for hydrochloric acid, arsenic, cadmium, chromium, zinc oxide, benzene, PCB, and dioxins/furans.

8. Emissions tests shall be conducted for sulfur dioxide, nitrogen oxides, carbon monoxide, and visible emissions from the boiler during the test burn.

9. Based on the data collected during the test burn, estimate the actual and potential emissions that will occur if the maximum amount of TDF requested is burned in the facility.

10. Any performance tests shall be conducted using EPA Reference Methods, as contained in 40 CFR 60 (Standards of Performance for New Stationary Sources), 40 CFR 61 (National Emission Standards for Hazardous Air Pollutants), and 40 CFR 266, Appendix IX (Multi-metals), or any other method approved by the Department, in writing, in accordance with Chapter 62-297, F.A.C.

11. The existing construction permit is extended until July 1, 1997, to allow time to complete the performance test. If additional time is needed, the permittee shall request an extension of time and provide the Department with documentation of the progress accomplished to date and shall identify the work required to complete the performance test.

12. Daily records (i.e., mass feed rates of each fuel, heat input, steam production, pressure, temperature, MW, fuel input rates, etc.) of the boiler operations when firing the TDF blend during the tests shall be maintained.

13. For rule applicability determination, calculate any change in emissions (lbs/hr and TPY) for all air pollutants that would result from the firing of a blend of TDF compared with presently permitted scenarios.

14. The authorized TDF performance test shall not result in the release of objectionable odors pursuant to Rule 62-296.320(2). F.A.C.

15. Performance testing shall cease as soon as possible if the test boiler operations are not in accordance with the conditions in the air permit No. PSD-FL-196, or this authorization protocol. Performance testing shall not resume until appropriate measures to correct the problem(s) have been implemented.

16. This Department action is only to authorize the TDF blend performance test. Any firing of tire derived fuel beyond the 60 calendar days of testing approved to conduct such tests will be deemed a violation of permit No. PSD-FL-196A.

17. The Palm Beach County Public Health Unit, the Department's South District, and the Bureau of Air Regulation shall be notified within 5 days, in writing, upon completion of the final test.

18. The testing series shall include emissions test for the maximum TDF blend (25 percent) with the boiler operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the capacity allowed by Permit No. PSD-FL-196.

19. A test protocol, specifying the pollutants to be tested and the sampling and analysis methods, including fuel and ash, shall be submitted to the Bureau of Air Regulation, with copies to the Palm Beach County Public Health Unit and Department's South District, for approval prior to commencement of testing.

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

Sincerely,

Howard L. Rhodes, Director
Division of Air Resources
Management

HLR/wh/t

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

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 Space, Gen. Mgr.
Okeelanta Power, LP
PO Box 8
South Bay, Fl
33493

4a. Article Number
P 265 659 149

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

7. Date of Delivery
1/27/97

5. Received By: *(Print Name)*

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

6. Signature: *(Addressee or Agent)*
X Gizella Ambrus

PS Form **3811**, December 1994 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

P 265 659 149

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

Sent to Dennis Space	
Street & Number Okeelanta	
Post Office, State, & ZIP Code South Bay, Fl	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date PSD-Fl-196 1-22-97	

PS Form **3800**, April 1995

Memorandum

Florida Department of
Environmental Protection

TO: Howard L. Rhodes

THRU: Clair Fancy
Al Linero

FROM: Willard Hanks

DATE: January 17, 1997

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

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

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

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

CHF/wh

Attachment

OKEELANTA POWER LIMITED PARTNERSHIP

Flo-Sun, Inc.
U.S. Generating Company

RECEIVED
JAN 24 1997
BUREAU OF
AIR REGULATION

January 20, 1997

State of Florida
Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Attn: Mr. A. A. Linero, P.E.
Administrator
New Source Review Section

Re: Okeelanta Power Limited Partnership
Tire Derived Fuel Project

Dear Mr. Linero:

The "Public Notice of Intent to Issue Air Construction Permit Amendment" (Draft Permit Amendment No. 0990332-003-AC) was published in The Palm Beach Post on December 24, 1996. On January 3, 1997 a copy of the "Proof of Publication" from that newspaper was submitted to the Department. As per your request please find enclosed the original copy of the "Proof of Publication".

If you have any questions please contact me at (561) 993-1003.

Sincerely,

James M. Meriwether
Environmental Manager

cc: (w/o enclosure)
D. Space
J. Ketterling

P.O. BOX 8 SOUTH BAY, FL 33493 561-993-1000 FAX 561-996-6596

Best Available Copy

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/he is Class Adv Mgr 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 permit/Okeelanta --- in the _____ Court, was published in said newspaper in the issues of December 24, 1996

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 December A.D. 1996

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.

Karen M. McLinton, Notary Public

Personally known XX or Produced Identification _____

Type of Identification Produced _____

No. 272383
LEGAL NOTICE
PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AMENDMENT
STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DRAFT Permit Amendment No: 0990332-003-AC, (PSD-FL-196A)
Okeelanta Cogeneration Plant
Palm Beach County

The Department of Environmental Protection (Department) givens notice of its intent to issue an air construction permit amendment to Okeelanta Power Limited Partnership to conduct a sixty (60) day performance test while burning a blend of Tire Derived Fuel (TDF) with bagasse and/or wood wastes at the Cogeneration Plant located near South Bey, Palm Beach County. A Best Availabla Control Technology (BACT) determination was not required for any poilutants pursuant to Rule 62-212.400, F.A.C., and 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The amendment will not cause a violation of any stete or federal ambient air quality standards or increments. The applicant's name and address are: Okeelanta Power LP, Post Office Box 8, South Bay, Florida 33493.

The plant is already permitted to burn bagasse and wood wastes as well as coal. Burning TDF as planned la not expected to significantly increase emissions compared with burning coal as permitted. Emission controls consist of electrostatic precipitators for control of particulate matter, selective non-catalytic reduction for nitrogen oxides and carbon injection tor mercury. The test may provide the Department with reasonable assurance that the plant can burn TDF without contravening Department standards, rules or permit conditions. Tha Department will consider tha results of the test burn in evaluating whether to issue a future permit modification to Okeelanta Power LP. Any such action will require another public notice.

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

The Department will accept written comments concerning the proposed DRAFT Permit Amendment issuance action for a perod of 14 (fourteen) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2800 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 Amendment, the Department shall issue a Revised DRAFT Permit Amendment and require, if applicable, another Public Notice.

The Department will issue FINAL Permit Amendment with the conditions of the DRAFT Permit Amendment unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S. or a party requests mediaton as an alternative remedy under Section 120.573 before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The proceudures for petitioning for a hearing are set forth below, followed by the procedures for requesting mediation.

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: 904/488-9370, fax: 904/487-4938. Petitions must be filed within (14) days of recaipt 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 (or a request for mediation, as discussed below) within the appropriate time period ahall constitue a waivar of that persons's right to raquest 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 shall contain the following information:

(a) The name, addrass 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 eech petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial intereats 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 facts which petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A stetement 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 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 effectecd 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 person whose substantial interests are affected by the Department's proposed permitting decision, may elect to pursue mediation by asking all parties to the proceeding to agree to such mediation and by filing with the Department a request for mediation and the written agreement of all such parties to madiate the dispute. The request and agreement must be filed in (received by) the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, by the same deadline as set forth above for the filing of a petition.

A request for mediation must contain the following information: (a) The name, address, and telephone number of the person requesting mediation and that person's representative, if any, (b) A statement of the preliminary agency action; (c) A statement of the relief sought, and (d) Either an explanation of how the requester's substantial interests will ba affected by the action or proposed action addressed in this notice of intent or e statement clearly identifying the petition for hearing that the requester has already filed, and incorporating it by reference.

The agreement to mediate must include the following: (a) The names, addresses, and telephone numbers of any persons who may attend the mediation; (b) The name, address, and telephone number of the mediator selected by the parties, or a provision for selecting a mediator within a specified time; (c) The agreed allocation o the costs and fees associated with the mediation; (d) The agreament of the parties on the confidentiality of discussions and documents introduced during mediation; (e) The date, time, and place of the first mediation session, or a deadline for holding the first session, if no mediator has yet been chosen; (f) The name of each party's representative who shall have authority to settle or recommend settlement; and (g) The signatures of all parties or their authorized representatives.

As provided in section 120.573 F.S., the timely agreement of all parties to mediate will toll the time limitations imposed by sections 120.569 and 120.57 for requesting and holding an administrative hearing. Unless otherwise agreed by the parties, the mediation must be concluded within sixty days of execution of the agreement. If mediation results in settlemant of the administrativa dispute, the Department must enter a final order incorprating the agreement of the parties. Persons whose substantial interasts will be affected by such a modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set torth above. If mediation terminates without settlement of the dispute, the Department shall notify all parites in writing that the administrative hearing processes under sections 120.569 and 120.57 F.S. remain available for disposition of the dispute, and the notice will specify the deadlines that then will apply for challenging the agency action and electing remedies under those two statutes.

A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays at:
Department of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 904/488-1344
Fax: 904/922-6979

Department of Environmental Protection
South District
2295 Victoria Avenue,
Suite 364
Ft. Myers, Florida 33901
Telephone: 941/332-6975
Fax: 941/332-6969
Palm Beach County
Public Health Unit;
901 Evernia Street
West Palm Beach, Florida 33402-0029; Phone No.: 407/355-3070
Fax: 407/355-2442
(561)355-3435.

The complete project file includes the Draft Permit Amendment, the application, and the information submitted by the responsible official, exclusive of confidantial records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Sutie 4, Tallahassee, Florida 32301, or call 904/488-1344, for additional information.

PUB: The Palm Beach Post December 24, 1996

R. File

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

December 13, 1996

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

Re: DRAFT Permit Amendment No. 0990332-003-AC (PSD-FL-196A)
Okeelanta Cogeneration Plant Tire Derived Fuel Project

Dear Mr. Space:

Enclosed is one copy of the Draft Air Construction Permit Amendment to conduct a performance test while burning Tire Derived Fuel (TDF) at the Cogeneration Plant located near South Bay, Palm Beach County. The Department's Intent to Issue Air Construction Permit Amendment and the "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AMENDMENT" are also included. Such a test may provide reasonable assurance consistent with Rule 62-4.070, F.A.C., that TDF can be burned as planned without contravening Department standards, rules or present permit conditions.

The "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AMENDMENT" 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.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. 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 904/488-1344.

Sincerely,

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

CHF/aal/l

Enclosures

In the Matter of an
Application for Permit Amendment by:

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

DRAFT Permit Amendment No.: 0990332-003-AC
PSD-FL-196A
Okeelanta Cogeneration Plant
Palm Beach County

INTENT TO ISSUE AIR CONSTRUCTION PERMIT AMENDMENT

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit amendment (copy of DRAFT Permit Amendment attached) for the proposed project, detailed in the DRAFT Permit Amendment specified above, for the reasons stated below.

The applicant, Okeelanta Power Limited Partnership, applied on May 14, 1996, to the Department for a air construction permit modification for its Cogeneration Plant located near South Bay, Palm Beach County. The request is to burn a blend of Tire Derived Fuel (TDF) with bagasse and wood chips.

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 a permit amendment is required to conduct a performance test to provide reasonable assurance that subsequent issuance of a permit modification allowing permanent use of TDF will not result in contravention of Department standards, rules, or permit conditions.

The Department intends to issue this air construction permit amendment based on the belief that reasonable assurances have been provided to indicate that operation of these emission units during the performance test 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 AMENDMENT". 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: 904/488-1344; Fax 904/ 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 amendment pursuant to Rule 62-103.150 (6), F.A.C.

The Department will issue the FINAL Permit Amendment, in accordance with the conditions of the enclosed DRAFT Permit Amendment 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 Amendment issuance action for a period of 14 (fourteen) days from the date of publication of "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AMENDMENT." 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 Amendment, the Department shall issue a Revised DRAFT Permit Amendment and require, if applicable, another Public Notice.

The Department will issue the permit amendment with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., or a party requests mediation as an alternative remedy under Section 120.573 F.S. before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for petitioning for a hearing are set forth below, followed by the procedures for requesting mediation.

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: 904/488-9730, fax: 904/487-4938. 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 (or a request for mediation, as discussed below) 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.

A person whose substantial interests are affected by the Department's proposed permitting decision, may elect to pursue mediation by asking all parties to the proceeding to agree to such mediation and by filing with the Department a request for mediation and the written agreement of all such parties to mediate the dispute. The request and agreement must be filed in (received by) the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, by the same deadline as set forth above for the filing of a petition.

A request for mediation must contain the following information: (a) The name, address, and telephone number of the person requesting mediation and that person's representative, if any; (b) A statement of the preliminary agency action; (c) A statement of the relief sought; and (d) Either an explanation of how the requester's substantial interests will be affected by the action or proposed action addressed in this notice of intent or a statement clearly identifying the petition for hearing that the requester has already filed, and incorporating it by reference.

The agreement to mediate must include the following: (a) The names, addresses, and telephone numbers of any persons who may attend the mediation; (b) The name, address, and telephone number of the mediator selected

by the parties, or a provision for selecting a mediator within a specified time; (c) The agreed allocation of the costs and fees associated with the mediation; (d) The agreement of the parties on the confidentiality of discussions and documents introduced during mediation; (e) The date, time, and place of the first mediation session, or a deadline for holding the first session, if no mediator has yet been chosen; (f) The name of each party's representative who shall have authority to settle or recommend settlement; and (g) The signatures of all parties or their authorized representatives.

As provided in Section 120.573 F.S., the timely agreement of all parties to mediate will toll the time limitations imposed by Sections 120.569 and 120.57 F.S. for requesting and holding an administrative hearing. Unless otherwise agreed by the parties, the mediation must be concluded within sixty days of the execution of the agreement. If mediation results in settlement of the administrative dispute, the Department must enter a final order incorporating the agreement of the parties. Persons whose substantial interests will be affected by such modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set forth above. If mediation terminates without settlement of the dispute, the Department shall notify all parties in writing that the administrative hearing processes under Sections 120.569 and 120.57 F.S. remain available for disposition of the dispute, and the notice will specify the deadlines that then will apply for challenging the agency action and electing remedies under those two statutes.

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., 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 AMENDMENT (including the PUBLIC NOTICE and the DRAFT permit amendment) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 12-13-96 to the person(s) listed:

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

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

(Clerk) 12-13-96 (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AMENDMENT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DRAFT Permit Amendment No.: 0990332-003-AC, (PSD-FL-196A)
Okeelanta Cogeneration Plant
Palm Beach County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit amendment to Okeelanta Power Limited Partnership to conduct a sixty (60) day performance test while burning a blend of Tire Derived Fuel (TDF) with bagasse and/or wood wastes at the Cogeneration Plant located near South Bay, Palm Beach County. A Best Available Control Technology (BACT) determination was not required for any pollutants pursuant to Rule 62-212.400, F.A.C., and 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The amendment will not cause a violation of any state or federal ambient air quality standards or increments. The applicant's name and address are: Okeelanta Power LP, Post Office Box 8, South Bay, Florida 33493.

The plant is already permitted to burn bagasse and wood wastes as well as coal. Burning TDF as planned is not expected to significantly increase emissions compared with burning coal as permitted. Emission controls consist of electrostatic precipitators for control of particulate matter, selective non-catalytic reduction for nitrogen oxides and carbon injection for mercury. The test may provide the Department with reasonable assurance that the plant can burn TDF without contravening Department standards, rules or permit conditions. The Department will consider the results of the test burn in evaluating whether to issue a future permit modification to Okeelanta Power LP. Any such action will require another public notice.

The Department will issue the FINAL Permit Amendment, in accordance with the conditions of the DRAFT Permit Amendment 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 Amendment issuance action for a period of 14 (fourteen) 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 Amendment, the Department shall issue a Revised DRAFT Permit Amendment and require, if applicable, another Public Notice.

The Department will issue FINAL Permit Amendment with the conditions of the DRAFT Permit Amendment unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S. or a party requests mediation as an alternative remedy under Section 120.573 before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for petitioning for a hearing are set forth below, followed by the procedures for requesting mediation.

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: 904/488-9370, fax: 904/487-4938. 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 (or a request for mediation, as discussed below) 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.

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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:

Department of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida, 32301
Telephone: 904/488-1344
Fax: 904/922-6979

Department of Environmental Protection
South District
2295 Victoria Avenue, Suite 364
Ft. Myers, Florida 33901
Telephone: 941/332-6975
Fax: 941/332-6969

Palm Beach County Public Health Unit
901 Evernia
West Palm Beach, Florida 33401
Telephone: 407/355-3070
Fax: 407/355-2442

The complete project file includes the Draft Permit Amendment, 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 904/488-1344, for additional information.

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:
Dennis Space, Gen. Mgr.
Okeelanta Power, LP
P O Box 8
South Bay, Fl
33493

4a. Article Number
P 265 659 105

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

7. Date of Delivery
12-17-96

5. Signature (Addressee)

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

6. Signature (Agent)
Grzella Ambrus

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

Thank you for using Return Receipt Service.

P 265 659 105

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 Okeelanta Power	
Post Office, State, & ZIP Code South Bay, Fl	
Postage	$ 0.00
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 12-13-96	

PS Form **3800**, April 1995

099032-003-AC
PSO-FI-196A

DRAFT

January XX, 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 LP
TDF Permit Amendment
AIRS ID No. 0990332-003-AC, PSD-FL-196A

Dear Mr. Space:

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

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

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

The performance test shall be subject to the following conditions:

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

2. The maximum TDF content of the fuel shall not exceed 25 percent by weight. Performance testing shall be conducted in 60 calendar days and completed within 90 days of when the TDF is first introduced into the boiler.

3. Stack emissions due to TDF firing shall not exceed any limit for coal burning in the construction permit No. PSD-FL-196 for this unit.

4. As-burned fuel samples (biomass and TDF), bottom ash, and fly ash shall be collected and analyzed for total metals content (chromium, copper, arsenic, cadmium, zinc oxide, mercury, lead, and beryllium) throughout the test burn of the blended fuel. Weekly composite analyses of daily samples are required as well as analyses of composite samples collected during the particulate emissions tests.

5. A material balance of the metals in the fuel, emissions, bottom ash and fly ash shall be performed and reported based on all test/analytical data.

6. The maximum feed rate of tires to each boiler at the Okeelanta cogeneration plant shall not exceed 21,030 pounds per hour or 25 percent by weight of the total feed rate, whichever is less.

7. Emissions tests shall be conducted and results reported for hydrochloric acid, arsenic, cadmium, chromium, zinc oxide, benzene, PCB, and dioxins/furans.

8. Emissions tests shall be conducted for sulfur dioxide, nitrogen oxides, carbon monoxide, and visible emissions from the boiler during the test burn.

9. Based on the data collected during the test burn, estimate the actual and potential emissions that will occur if the maximum amount of TDF requested is burned in the facility.

10. Any performance tests shall be conducted using EPA Reference Methods, as contained in 40 CFR 60 (Standards of Performance for New Stationary Sources), 40 CFR 61 (National Emission Standards for Hazardous Air Pollutants), and 40 CFR 266, Appendix IX (Multi-metals), or any other method approved by the Department, in writing, in accordance with Chapter 62-297, F.A.C.

11. The existing construction permit is extended until July 1, 1997, to allow time to complete the performance test. If additional time is needed, the permittee shall request an extension of time and provide the Department with documentation of the progress accomplished to date and shall identify the work required to complete the performance test.

12. Daily records (i.e., mass feed rates of each fuel, heat input, steam production, pressure, temperature, MW, fuel input rates, etc.) of the boiler operations when firing the TDF blend during the tests shall be maintained.

13. For rule applicability determination, calculate any change in emissions (lbs/hr and TPY) for all air pollutants that would result from the firing of a blend of TDF compared with presently permitted scenarios.

14. The authorized TDF performance test shall not result in the release of objectionable odors pursuant to Rule 62-296.320(2). F.A.C.

15. Performance testing shall cease as soon as possible if the test boiler operations are not in accordance with the conditions in the air permit No. PSD-FL-196, or this authorization protocol. Performance testing shall not resume until appropriate measures to correct the problem(s) have been implemented.

DRAFT

16. This Department action is only to authorize the TDF blend performance test. Any firing of tire derived fuel beyond the 60 calendar days of testing approved to conduct such tests will be deemed a violation of permit No. PSD-FL-196A.

17. The Palm Beach County Public Health Unit, the Department's South District, and the Bureau of Air Regulation shall be notified within 5 days, in writing, upon completion of the final test.

18. The testing series shall include emissions test for the maximum TDF blend (25 percent) with the boiler operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the capacity allowed by Permit No. PSD-FL-196.

19. A test protocol, specifying the pollutants to be tested and the sampling and analysis methods, including fuel and ash, shall be submitted to the Bureau of Air Regulation, with copies to the Palm Beach County Public Health Unit and Department's South District, for approval prior to commencement of testing.

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

Sincerely,

_____

Howard L. Rhodes, Director,
Division of Air Resources Management

HLR/wh/h

Memorandum

Florida Department of
Environmental Protection

TO: Clair Fancy

THROUGH: Al Linero

FROM Willard Hanks WHH

DATE: December 6, 1996

SUBJECT: Okeelanta Power LP, PSD-FL-196A
Osceola Power, LP, PSD-FL-197C

Attached for your approval are draft letters amending the construction permits for two biomass/coal/oil fired cogeneration facilities located at sugar mills in Palm Beach County. The proposed amendments authorize limited performance tests on the facilities while they are burning a blend of tire derived fuel (TDF) and biomass. The information will help us evaluate their request to burn TDF on a permanent basis.

The plants are already permitted to burn bagasse and wood wastes as well as coal. The TDF will be burned in lieu of coal and is not expected to significantly increase emissions compared with burning of coal. Emission controls consist of electrostatic precipitators for control of particulate matter, selective non-catalytic reduction for nitrogen oxides and carbon injection for mercury. The test may provide the Department with reasonable assurance that the plant can burn TDF without contravening Department standards, rules or permit conditions.

I recommend your approval and signature.

CHF/wh/h

FLORIDA DEPARTMENT OF HEALTH & REHABILITATIVE SERVICES

Working in partnership with local communities to help people be self-sufficient, experience good health and live in stable families and communities.

October 28, 1996
(Faxed)

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

Re: Comments on Proposed Trial Burn
Cogeneration Power Plants - Tire Derived Fuel (TDF)
Okeelanta Power Ltd. and Osceola Power Ltd.

Dear Mr. Hanks:

The Department is considering a proposal to test burn tire derived fuels (TDF) at these facilities. The Health Department believes this is reasonable and would provide information needed to make a final determination on these applications. We request the following conditions be considered in the Department's approval for a trial burn:

(1) Trial Burn Window: The trial burn is approved for a period of (60) consecutive calendar days from the initial burning of TDF.

(2) Notification: The facility shall notify the Health Department at least (1) day prior to the initial burning of TDF. The facility shall notify the Health Department at least (15) days prior to conducting any requested stack testing.

(3) Continuous Monitoring Requirements: During the entire trial burn period, the facility shall continuously monitor and record the SO_2, NOx, and CO concentrations, the opacity, and the heat input rates from each operating boiler with the certified monitors required by permit. In addition, the facilities shall continuously monitor and record the TDF, biomass, bagasse, and fuel oil feed rates during the entire test burn period.

(4) Requested Stack Testing:

(a) *Hydrochloric Acid Emissions*: At least one boiler at each facility shall stack test for HCl emissions during the test burn period.
- Test Method shall be EPA Method 26 or 26A.
- Test shall consist of a minimum of (3), one-hour runs while burning at least 90% of the requested maximum TDF feed rate.
- Emissions shall be reported in pounds of HCl per hour.

(b) *Dioxin/Furan Emissions*: At least one boiler at each facility shall stack test for dioxin/furan emissions during the test burn period.
- Test Method shall be EPA Method 23.
- Test shall consist of a minimum of (3), four-hour runs while burning at least 90% of the requested maximum TDF feed rate.

DISTRICT IX
PALM BEACH COUNTY PUBLIC HEALTH UNIT - P.O. BOX 29 - WEST PALM BEACH, FL 33402
LAWTON CHILES, GOVERNOR

- Emissions shall be reported in ng/dscm for total mass dioxins/furans AND ng/dscm for the 2,3,7,8-tetrachlorinated dibenzo-p-dioxin toxic equivalents based on the 1989 international toxic equivalency factors.
- The activated carbon feed rate (in pounds per hour) shall be monitored and recorded at least at (15) minute intervals during each test run.

(5) Test Burn Reports: Within (60) days of completion of the test burn period, the facilities shall provide the DEP and the Health Department with a report, including:

- A summary of the over all project including a description of the equipment used to handle, transfer, and burn TDF.
- Any changes in boiler operations required to accommodate TDF.
- Any problems identified during the trial burn period.
- A summary of the emissions of SO_2, NOx, CO, the opacity, the heat input rates, and the fuel feed rates as determined from the continuous monitoring records.
- A summary of the emissions of HCl and dioxins/furans, including a comparison of the measured results with the predicted emissions.
- A comparison of the measured dioxin/furan results with the new emission guidelines for municipal waste combustors.
- A summary of the compliance status with regard to the current permit limits.

If you have any questions on these comments, please contact me at the numbers below.

Sincerely,

For the Division Director
Environmental Health and Engineering

Jeffery F. Koerner

Jeffery F. Koerner, Air Permit Engineer
Air Pollution Control Section
Phone: (407) 355-4549 *Suncom: 273-4549*
FAX: (407) 355-2442

Filename: COGEN_3.CMT

cc: SD
EPA
NPS
S. Arif
W. Harris
K. Anderson

KBN
A GOLDER ASSOCIATES COMPANY

RECEIVED
OCT 10 1996
BUREAU OF
AIR REGULATION

October 8, 1996

Mr. Al Linero, P.E.
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 33493

Re: Okeelanta Power Limited Partnership
Tire-Derived Fuel Permit Amendment
Facility ID No. 0990332
Permit File No. AC50-219413; PSD-FL-196A

Dear Mr. Linero:

KBN Engineering and Applied Sciences, Inc. (KBN) has prepared the following responses to your August 16th request for additional information concerning the request to utilize tire-derived fuel at the Okeelanta Power Limited Partnership (OkPLP) cogeneration facility.

1. Compliance testing was performed on the cogeneration boilers at the OkPLP facility during the month of May 1996. Attached are summaries that detail the results of the compliance tests for each boiler. Except for a few deviations, all permitted emission limits were met. The deviations were as follows:

   Boiler A
   Sulfur Dioxide - OkPLP's contractor inadvertently listed Method 8 instead of Method 6 in the Protocol for Compliance Testing. Method 8 and Method 6 use identical analytical methods, however, Method 8 uses an isokinetic multi transverse sampling procedure versus the single sample point for Method 6 and is in reality more representative of actual flue gas conditions. Method 8 results were submitted to demonstrate compliance with permit conditions for all three boilers. OkPLP retested Boiler A in August using Method 6 and the results, 0.056 lb/MMBtu and 28.4 lb/hr, are in compliance with permit conditions. Boilers B and C will be re-tested at the next semi-annual stack testing event.

   Sulfuric acid mist - EPA Method 8 showed emissions in excess of the permitted limit; however, the method is believed to be biased high primarily due to the combination of SO_2 and moisture in the flue gases. Therefore, a modified EPA Method 8 was performed, which resulted in emissions well within the permitted limit. OkPLP has requested that the modified method be approved as an alternate sampling procedure.

   Mercury - mercury emissions were higher than permitted; however, the carbon injection system for mercury control was set at the lowest carbon injection rate. Recently, OkPLP relocated the carbon injection points in each boiler upstream to the air preheat outlets in order to maximize the carbon residence time in the flue gas. On August 20 and 21, 1996, Boiler A was retested for mercury emissions. The carbon injection rates were adjusted to 100% and 50% capacity for each three series of tests. At 100% carbon injection rate, mercury emissions were an average of 2.44E-07 lb/MMBtu and 1.23E-04 lb/hr. At 50% carbon injection rate, mercury emissions were an average of 1.32E-07 lb/MMBtu and 4.66E-05 lb/hr. Even at 50% carbon injection, these emission rates are within the permitted mercury limits. Boilers B and C will be retested during the next semi-annual stack test event.

6241 Northwest 23rd Street, Suite 500, Gainesville, Florida 32653-1500, 352-336-5600 FAX 352-336-6603
5405 West Cypress Street, Suite 215, Tampa, Florida 33607, 813-287-1717 FAX 813-287-1716
1801 Clint Moore Road, Suite 105, Boca Raton, Florida 33487, 407-994-9910 FAX 407-994-9393
7785 Baymeadows Way, Suite 105, Jacksonville, Florida 32256, 904-739-5600 FAX 904-739-7777
1616 'P' Street NW, Suite 350, Washington, DC 20036, 202-462-1100 FAX 202-462-2270

Boiler B

Sulfur Dioxide - Boiler B will be retested using Method 6 during the next semi-annual stack testing event.

Sulfuric acid mist - same situation as described for Boiler A above.

Mercury - Boiler B will be retested during the next semi-annual stack testing event.

Boiler C

Nitrogen oxides - although the emission rate exceeded 0.15 lb/MMBtu (the permitted numerical limit) on this day, it was in compliance as per the 107.3 lb/hr permit limit. The lb/MMBtu value was calculated using an F-factor approximately 12% higher than the F-factor calculations for Boilers A and B. Clean Air Engineering (CAE) recalculated the fuel factor for stack C because the individual F-factor for fuel analysis no. 5 was greater than two standard deviations from the average of the eleven samples. The revised fuel factor for stack C is 9,337 dscf/MMBtu. Using the revised fuel factor, the average NO_x value for the stack test is 0.15 lb/MMBtu which is in compliance with permit conditions. In addition, permit compliance with the NO_x limit is based upon a thirty day rolling average. Therefore, the test results as originally calculated do not constitute a violation.

Sulfur Dioxide - Boiler C will be retested using Method 6 during the next semi-annual stack testing event.

Sulfuric acid mist - same situation as described for Boiler A above.

Lead - although Boiler C lead emissions were measured at just above the permitted limit of 2.5E-05 lb/MMBtu, it was in compliance as per the 0.018 lb/hr permit limit. Using the revised fuel factor, as mentioned above for Boiler C NO_x, the average lead value for the stack test is 2.7E-05 lb/MMBtu. Due to the similarity in results from runs 1 and 2, the results of run 3 may not be representative of actual stack conditions. Boiler C will be retested during the next semi-annual stack testing event. It is expected that future testing will result in compliance.

Mercury - Boiler C will be retested during the next semi-annual stack testing event.

2. In reference to the maximum tire-derived fuel (TDF) input, there is no discrepancy between the values presented in the original application and the corrected application page submittals dated July 17, 1996. The original application (Table 2-2) presented the maximum TDF input on a short-term basis as 21,935 lb/hr and 340 MMBtu/hr. Based on the remaining heat input due to wood waste fuel (375 MMBtu/hr and 68,182 lb/hr), the total weight of fuel fired is 90,117 lb/hr. Thus, TDF represents approximately 25% by weight on a short term basis (21,935 ÷ 90,117 = 24.3%). In the July 17, 1996, application corrected application pages, Table 4 presents this identical information for fuel firing on a short term basis.

   Some confusion may stem from the annual average fuel usage figures. In Table 2-2 of the original application, TDF input from all three boilers was stated to be 9.1% on a weight basis. However, Table 4 of the July 17 submittal presented annual fuel usage on a per boiler basis. Each boiler can potentially burn the total amount of TDF that all three boilers combined can burn. This is reflected in Table 4 which shows each boiler can fire up to 81,613 TPY TDF, which equates to 40.4% on a heat input basis and 19.4% on a weight basis, annual average.

For your convenience, Table 2-2 from the original application and Table 4 from the corrected application pages submittal are attached.

Presented below are responses to the letter dated August 12, 1996 from the Bureau of Solid and Hazardous Waste pertaining to air and ash issues.

1a. Wood Waste Mass Balance Analysis

Actual heavy metal concentrations in wood waste fuel delivered to OkPLP were analyzed from samples taken between January and August of 1996. From this data, a representative average heavy metal concentration was obtained and is presented in the first two columns of Tables 1.

Mass balance calculations were then performed in order to derive theoretical heavy metal concentrations in the ash so that they may be compared to actual average ash concentrations. Utilizing the actual fly ash and bottom ash heavy metal concentration data, a partitioning factor was developed in order to theoretically predict the fraction of the heavy metal that would partition to fly ash and the fraction partitioning to bottom ash (see far right hand columns of Table 1).

The results of the mass balance are presented in Table 1. As shown, the theoretical ash element concentrations, except for lead, are within $\pm 20\%$ of the actual sampled ash data. The theoretical lead ash concentrations are within about 35% of the actual measured concentrations, with the actual average ash concentrations being higher than the theoretical value. Some metals that were in the ash were not sampled in the wood waste, therefore no mass balance comparison could be made for these compounds.

1b. Fly and Bottom Ash Mass Balance Analysis

Actual heavy metal concentrations in fly ash and bottom ash were analyzed from samples taken between November 1995 and July 1996. From this data, a representative average heavy metal concentration in the ash was obtained and is presented in the first two columns of Tables 2. Mass balance calculations were then performed in order to derive theoretical heavy metal concentrations in the wood waste so that they may be compared to actual average wood waste concentrations. The results are shown in the last two columns of Table 2. As shown, the theoretical arsenic, chromium and mercury concentrations in the wood waste are in close agreement with the actual measured values. However, larger differences are shown for lead.

Additional metals were sampled in the ash than were sampled in the wood waste, therefore actual barium, cadmium, copper, selenium and silver concentrations could not be compared to theoretical wood waste concentrations.

1c. Heavy Metals Concentration Analysis summary

With the exception of lead, it has been shown that using actual wood waste heavy metal concentrations to back calculate through mass balance to theoretical ash heavy metal concentrations yields close approximations to actual ash heavy metal concentrations. Therefore, using mass balance calculations is a valid method to estimate concentrations of heavy metals in the ash from wood waste combustion.

Actual lead concentrations in the ash were shown to be higher than those based on mass balance calculations. The reason for this is not known. Therefore, further analysis of the lead content of fuel and ash may be warranted.

2. Comparison of Calculated Arsenic Concentration in Wood Waste to <3% CCA Treated Wood
Table 2-11 from the May 2, 1996 Okeelanta TDF submittal showed that the <3% CCA treated wood fuel mixture by volume would contain 70.7 ppm (wet basis) of arsenic (the table is attached for reference). Concentrations of arsenic in wood waste fuel based on actual analysis and mass balance calculations are approximately 21 ppm (wet basis). This demonstrates that Okeelanta is receiving less than 1.0% (wet basis) CCA treated wood in its deliveries of wood waste fuel. Ideally, no CCA treated wood should be mixed with the wood waste fuel, however, it is recognized that some CCA treated wood still ends up in the supplied fuel mix. Okeelanta's random fuel samplings show that the facility is burning considerably less CCA treated wood than they are permitted to burn.

3. Anticipated Heavy Metal Concentrations in Combined TDF/Wood Waste Fuel and Ash
The theoretical combined fuel analysis concentration is presented in column three of Table 3. These values are based on as-fired short term fuel usage of 75% wood waste and 25% TDF on a weight basis. Theoretical combined fuel ash concentrations are presented in the remainder of Table 3. Actual partitioning factors from Table 1 were used to predict theoretical combined fuel fly ash and bottom ash concentrations.

4. Additional Air Permit Information Requested by The Bureau
Copies of specific conditions 12 and 19 from permit number AC50-219413 pertaining to fuel receiving, handling, storage and sampling requirements are attached.

If you have any questions or need for other information than that given here, please let me know.

Sincerely,

David A. Buff

David A. Buff
Professional Engineer
Florida P.E. #19011

SEAL

DB/vjp
Attachments

cc: James Meriwether, OkPLP
Bill Tarr, Flo-Sun, Inc.
Paul Wesson, KBN
File (2)
CC: D. Knowles, SD
J. Koerner, PBCo.
K. Anderson, DEP
B. Beals, EPA
J. Bunyak, NPS
S. Arif, BAR

PROJECT OVERVIEW

The testing was conducted on Stack A from May 9 through May 30, 1996. Coordinating the field testing were:

J. Prosser - Bechtel Power Corporation
J. Meriwether - Okeelanta Power L.P.
F. Sittig - Florida Department of Environmental Protection
D. Brown - HRS, Palm Beach County
D. Dreska - Clean Air Engineering

Table 1-1 contains a summary of the test program. More detailed test conditions and results of analysis are presented in Tables 2-1 through 2-15 on pages 2-1 through 2-15.

Table 1-1:
Summary of Test Results

Source Constituent	Sampling Method	Average Emission	Permit Limit[a]
Stack A			
Particulate (lb/hr)	EPA M5	5.63	21.5
Particulate (lb/10^6Btu)	EPA M5	0.0084	0.03
PM_{10} (lb/hr)	EPA M201A	4.09	21.5
PM_{10} (lb/10^6Btu)	EPA M201A	0.0058	0.03
Nitrogen Oxides (lb/hr)	EPA M7E	94.06	107.3
Nitrogen Oxides (lb/10^6Btu)	EPA M7E	0.138	0.15
Sulfur Dioxide (lb/hr)[b]	EPA M8	45.4	71.5
Sulfur Dioxide (lb/10^6Btu)[b]	EPA M8	0.063	0.10
Sulfuric Acid Mist (lb/hr)	EPA M8[c]	77.1	2.15
Sulfuric Acid Mist (lb/10^6Btu)	EPA M8[c]	1.0E-1	3.0E-3
Sulfuric Acid Mist (lb/hr)	EPA M8 (mod)[c]	0.767	2.15
Sulfuric Acid Mist (lb/10^6Btu)	EPA M8 (mod)[c]	1.1E-3	3.0E-3
Visible Emissions (%) (6-min. avg.)	EPA M9	15	20
Carbon Monoxide (lb/hr)	EPA M10	131.96	250.3
Carbon Monoxide (lb/10^6Btu)	EPA M10	0.191	0.35
Inorganic Lead (lb/hr)	EPA M12	0.0174	0.018
Inorganic Lead (lb/10^6Btu)	EPA M12	2.43E-5	2.5E-5
Total Fluorides (lb/hr)	EPA M13B	< 2.17E-2	NA[d]
Total Fluorides (lb/10^6Btu)	EPA M13B	< 2.97E-5	NA[d]

(Table Continued on Next Page)

PROJECT OVERVIEW

Table 1-1:
Summary of Test Results (Continued)

TNMHC (lb/hr)[c]	EPA M25	28.8	42.9
TNMHC (lb/10^6Btu)[c]	EPA M25	0.037	0.06
THC (lb/hr)[e]	EPA M25A	0.534	42.9
THC (lb/10^6Btu)[e]	EPA M25A	0.00069	0.06
TNMHC (lb/hr)[f]	EPA M18/25A	0.158	42.9
TNMHC (lb/10^6Btu)[f]	EPA M18/25A	0.00021	0.06
Mercury (lb/hr)	EPA M101A	6.7E-4	2.1E-4[g]
Mercury (lb/10^6Btu)	EPA M101A	9.6E-7	2.9E-7[g]
Beryllium (lb/hr)	EPA M104	< 2.55E-6	NA[d]
Beryllium (lb/10^6Btu)	EPA M104	< 3.28E-9	NA[d]
Arsenic (lb/hr)	EPA M108	5.41E-3	NA[d]
Arsenic (lb/10^6Btu)	EPA M108	7.56E-6	NA[d]
Chromium (lb/hr)	CTM 012	3.61E-3	NA[d]
Chromium (lb/10^6Btu)	CTM 012	4.53E-5	NA[d]
Copper (lb/hr)	CTM 012	8.78E-2	NA[d]
Copper (lb/10^6Btu)	CTM 012	1.10E-5	NA[d]

[a] Permit limits obtained from Okeelanta Power L.P. permit number: AC50-219413 PSD-FL-196.
[b] Average of first three EPA Method 8 runs which were performed.
[c] See Discussion on page 1-3.
[d] Not-Applicable-no permit limit listed.
[e] Methane fraction included in results.
[f] Methane fraction subtracted from results.
[g] Emission limit for wood waste.

PROJECT OVERVIEW

The testing was conducted on Stack B from May 14 through May 31, 1996. Coordinating the field testing were:

J. Prosser - Bechtel Power Corporation
J. Meriwether - Okeelanta Power L.P.
F. Sittig - Florida Department of Environmental Protection
D. Brown - HRS, Palm Beach County
D. Dreska - Clean Air Engineering

Table 1-1 contains a summary of the test program. More detailed test conditions and results of analysis are presented in Tables 2-1 through 2-14 on pages 2-1 through 2-14.

Table 1-1:
Summary of Test Results

Source Constituent	Sampling Method	Average Emission	Permit Limit[a]
Stack B			
Particulate (lb/hr)	EPA M5	2.95	21.5
Particulate (lb/10^6Btu)	EPA M5	0.0039	0.03
PM_{10} (lb/hr)	EPA M201A	2.26	21.5
PM_{10} (lb/10^6Btu)	EPA M201A	0.0030	0.03
Nitrogen Oxides (lb/hr)	EPA M7E	105.1	107.3
Nitrogen Oxides (lb/10^6Btu)	EPA M7E	0.14	0.15
Sulfur Dioxide (lb/hr)[b]	EPA M8	57.8	71.5
Sulfur Dioxide (lb/10^6Btu)[b]	EPA M8	0.080	0.10
Sulfuric Acid Mist (lb/hr)	EPA M8[c]	100.0	2.15
Sulfuric Acid Mist (lb/10^6Btu)	EPA M8[c]	1.4E-1	3.0E-3
Sulfuric Acid Mist (lb/hr)	EPA M8 (mod)[c]	0.978	2.15
Sulfuric Acid Mist (lb/10^6Btu)	EPA M8 (mod)[c]	1.4E-3	3.0E-3
Visible Emissions (%) (6-min. avg.)	EPA M9	13	20
Carbon Monoxide (lb/hr)	EPA M10	135.8	250.3
Carbon Monoxide (lb/10^6Btu)	EPA M10	0.18	0.35
Inorganic Lead (lb/hr)	EPA M12	0.0085	0.018
Inorganic Lead (lb/10^6Btu)	EPA M12	1.2E-5	2.5E-5
Total Fluorides (lb/hr)	EPA M13B	< 1.74E-2	NA[d]
Total Fluorides (lb/10^6Btu)	EPA M13B	< 2.24E-5	NA[d]

(Table Continued on Next Page)

PROJECT OVERVIEW

Table 1-1:
Summary of Test Results (Continued)

TNMHC (lb/hr)[c]	EPA M25	28.99	42.9
TNMHC (lb/10^6Btu)[c]	EPA M25	0.040	0.06
THC (lb/hr)[e]	EPA M25A	0.501	42.9
THC (lb/10^6Btu)[e]	EPA M25A	0.00069	0.06
TNMHC (lb/hr)[f]	EPA M18/25A	0.00	42.9
TNMHC (lb/10^6Btu)[f]	EPA M18/25A	0.00	0.06
Mercury (lb/hr)	EPA M101A	6.73E-4	2.1E-4[g]
Mercury (lb/10^6Btu)	EPA M101A	9.75E-7	2.9E-7[g]
Beryllium (lb/hr)	EPA M104	< 2.52E-6	NA[d]
Beryllium (lb/10^6Btu)	EPA M104	< 3.62E-9	NA[d]
Arsenic (lb/hr)	EPA M108	2.36E-2	NA[d]
Arsenic (lb/10^6Btu)	EPA M108	3.40E-5	NA[d]
Chromium (lb/hr)	CTM 012	6.10E-3	NA[d]
Chromium (lb/10^6Btu)	CTM 012	1.07E-5	NA[d]
Copper (lb/hr)	CTM 012	1.42E-2	NA[d]
Copper (lb/10^6Btu)	CTM 012	2.19E-5	NA[d]

[a] Permit limits obtained from Okeelanta Power L.P. permit number: AC50-219413 PSD-FL-196.
[b] Average of all six EPA Method 8 runs which were performed.
[c] See Discussion on page 1-5.
[d] Not-Applicable-no permit limit listed.
[e] Methane fraction included in results.
[f] Methane fraction subtracted from results.
[g] Emission limit for wood waste.

PROJECT OVERVIEW

The testing was conducted on Stack C from May 20 through June 6, 1996. Coordinating the field testing were:

J. Prosser - Bechtel Power Corporation
J. Meriwether - Okeelanta Power L.P.
F. Sittig - Florida Department of Environmental Protection
D. Brown - HRS, Palm Beach County
D. Dreska - Clean Air Engineering

Table 1-1 contains a summary of the test program. More detailed test conditions and results of analysis are presented in Tables 2-1 through 2-13 on pages 2-1 through 2-13.

Table 1-1:
Summary of Test Results

Source Constituent	Sampling Method	Average Emission	Permit Limit[a]
Stack C			
Particulate (lb/hr)	EPA M5	3.51	21.5
Particulate (lb/10^{6}Btu)	EPA M5	0.0055	0.03
PM_{10} (lb/hr)	EPA M201A	3.16	21.5
PM_{10} (lb/10^{6}Btu)	EPA M201A	0.0047	0.03
Nitrogen Oxides (lb/hr)	EPA M7E	97.90	107.3
Nitrogen Oxides (lb/10^{6}Btu)	EPA M7E	0.16	0.15
Sulfur Dioxide (lb/hr)	EPA M8	25.2	71.5
Sulfur Dioxide (lb/10^{6}Btu)	EPA M8	0.039	0.10
Sulfuric Acid Mist (lb/hr)	EPA M8[b]	56.9	2.15
Sulfuric Acid Mist (lb/10^{6}Btu)	EPA M8[b]	8.9E-2	3.0E-3
Sulfuric Acid Mist (lb/hr)	EPA M8 (mod)[b]	0.902	2.15
Sulfuric Acid Mist (lb/10^{6}Btu)	EPA M8 (mod)[b]	1.4E-3	3.0E-3
Visible Emissions (%) (6-min. avg.)	EPA M9	10	20
Carbon Monoxide (lb/hr)	EPA M10	127.0	250.3
Carbon Monoxide (lb/10^{6}Btu)	EPA M10	0.20	0.35
Inorganic Lead (lb/hr)	EPA M12	0.017	0.018
Inorganic Lead (lb/10^{6}Btu)	EPA M12	2.6E-5	2.5E-5
Total Fluorides (lb/hr)	EPA M13B	< 2.00E-2	NA[c]
Total Fluorides (lb/10^{6}Btu)	EPA M13B	< 3.23E-5	NA[c]

(Table Continued on Next Page)

PROJECT OVERVIEW

Table 1-1:
Summary of Test Results (Continued)

TNMHC (lb/hr)[b]	EPA M25	35.4	42.9
TNMHC (lb/10^6Btu)[b]	EPA M25	0.0545	0.06
THC (lb/hr)[d]	EPA M25A	1.21	42.9
THC (lb/10^6Btu)[d]	EPA M25A	0.00185	0.06
TNMHC (lb/hr)[e]	EPA M18/25A	0.808	42.9
TNMHC (lb/10^6Btu)[e]	EPA M18/25A	0.0012	0.06
Mercury (lb/hr)	EPA M101A	1.1E-3	2.1E-4[f]
Mercury (lb/10^6Btu)	EPA M101A	1.7E-6	2.9E-7[f]
Beryllium (lb/hr)	EPA M104	< 2.47E-6	NA[c]
Beryllium (lb/10^6Btu)	EPA M104	< 4.26E-9	NA[c]
Arsenic (lb/hr)	EPA M108	5.64E-3	NA[c]
Arsenic (lb/10^6Btu)	EPA M108	9.02E-6	NA[c]
Chromium (lb/hr)	CTM 012	6.12E-3	NA[c]
Chromium (lb/10^6Btu)	CTM 012	9.82E-5	NA[c]
Copper (lb/hr)	CTM 012	1.31E-2	NA[c]
Copper (lb/10^6Btu)	CTM 012	2.10E-5	NA[c]

[a] Permit limits obtained from Okeelanta Power L.P. permit number: AC50-219413 PSD-FL-196.
[b] See Discussion on page 1-3.
[c] Not-Applicable-no permit limit listed.
[d] Methane fraction included in results.
[e] Methane fraction subtracted from results.
[f] Emission limit for wood waste.

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	
			Maximum Short-Term (per boiler)				
Biomass: Bagasse	715	MMBtu/hr	68	486	MMBtu/hr	168,235	lb/hr^a
Wood Waste	715	MMBtu/hr	68	486	MMBtu/hr	130,000	lb/hr^b
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
			Annual Average (total all three boilers)				
NORMAL OPERATIONS							
Biomass	1.150E+13	Btu/yr	68	7.820E+12	Btu/yr	1,352,941	TPY^a
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		
24.9% OIL FIRING							
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		
15.2% COAL FIRING							
Biomass	9.395E+12	Btu/yr	68	6.389E+12	Btu/yr	1,105,294	TPY
No. 2 Oil	0	Btu/yr	85	0	Btu/yr	0	gal/yr
Coal	1.684E+12	Btu/yr	85	1.431E+12	Btu/yr	70,167	TPY
Tire-Derived Fuel	0	Btu/yr	68	0	Btu/yr	0	TPY
TOTAL	1.108E+13	Btu/yr		7.820E+12	Btu/yr		
22% TIRE-DERIVED FUEL FIRING (9.1% TDF, weight basis)							
Biomass	8.970E+12	Btu/yr	68	6.100E+12	Btu/yr	815,455	TPY^b
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	2.530E+12	Btu/yr	68	1.720E+12	Btu/yr	81,613	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.

^a Based on heating value for bagasse of 4,250 Btu/lb, wet basis.
^b Based on heating value for wood waste of 5,500 Btu/lb.

Table 4. Maximum Fuel Usage and Heat Input Rates per Boiler, Okeelanta Power Limited Partnership

Fuel	Heat Input	Heat Transfer Efficiency (%)	Heat Output	Fuel Firing Rate	
	Maximum Short-Term (per boiler)				
	(MMBtu/hr)		(MMBtu/hr)		
Biomass - Bagasse	715	68	486	168,235	lb/hr^a
- Wood Was	715	68	486	130,000	lb/hr^b
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
	Annual Average (per boiler)				
	(Btu/yr)		(Btu/yr)		
NORMAL OPERATIONS					
Biomass	6.263E+12	68	4.259E+12	736,871	TPY^a
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	6.263E+12		4.259E+12		
24.9% OIL FIRING					
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	5.896E+12		4.259E+12		
24.9% COAL FIRING					
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	5.896E+12		4.259E+12		
40.4% TIRE-DERIVED FUEL					
Biomass	3.733E+12	68	2.538E+12	339,364	TPY^b
No. 2 Fuel Oil	0	85	0	0	gal/yr
Coal	0	85	0	0	TPY
Tire-Derived Fuel	2.530E+12	68	1.720E+12	81,613	TPY
TOTAL	6.263E+12		4.259E+12		

^a Based on bagasse firing.
^b Based on wood waste firing.

Notes: Total heat output required = 4.259E+12 Btu/yr total both boilers.
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

Basis for annual heat input

Grinding season: 440,000 lb/hr steam; 658 MMBtu/hr/boiler; 140 crop days
Heat input= 4.4218E+12 Btu/yr

Non-grinding season: 273,150 lb/hr steam; 369 MMBtu/hr/boiler; 225 crop days; 95% capacity
Heat input= 3.7859E+12 Btu/yr

Totals: Heat input= 8.2077E+12 Btu/yr

Table 1. Calculation of Theoretical Metals Concentration in Ash, Okeelanta Power L.P. Facility, South Bay, FL.

Parameter	Actual Woodwaste Fuel Analysis		Ash Element Concentration (ppm) (a)							
	As Received 37 % Moisture (ppm)	Dry (ppm)	Theoretical Partitioning Factor (b)		Theoretical		Actual		Actual Partitioning Factor	
			Fly Ash	Bottom Ash	Fly Ash	Bottom Ash	Fly Ash	Bottom Ash	Fly Ash	Bottom Ash
Arsenic	21.4	34.0	0.94	0.06	491	58	512	66	0.94	0.06
Barium	- -	- -	--	--	--	--	187	96	0.78	0.22
Cadmium	- -	- -	--	--	--	--	2.6	ND	1.00	0.00
Chromium	27.2	43.2	0.84	0.16	558	197	462	164	0.84	0.16
Copper	19.1	30.3	0.90	0.10	420	87	- -	- -	- -	- -
Lead	6.3	10.0	0.83	0.17	128	49	202	77	0.83	0.17
Mercury	0.078	0.12	0.30 (c)	N/A	0.6	- -	0.6	ND	N/A	N/A
Selenium	- -	- -	--	--	- -	- -	ND	ND	--	--
Silver	- -	- -	--	--	- -	- -	ND	ND	--	--

Note:
N/A = Not Applicable
ND = Non Detectable
(a) Assume woodwaste fuel consists of 10% ash, dry basis. Assume 65% of total ash becomes fly ash and 35% of total ash becomes bottom ash.
(b) Based on partitioning factors derived from actual ash concentrations. Partitioning factors for copper are assumed because no actual partitioning factors are available.
(c) Assume that 30% of the mercury condenses on to the fly ash and 70% volatilizes out the boiler stack.

Example Calculation - Theoretical Ash Element Concentration:

Basis = 1 lb of woodwaste fuel (dry)
Total arsenic present = 34.0 E-06 X 1 lb of wood (dry) = 34.0 E-06 lbs As
Arsenic partitioned to fly ash = 34.0 E-06 lbs X 0.94 = 31.96 E-06 lbs As
Arsenic partitioned to bottom ash = 34.0 E-06 lbs X 0.06 = 2.04 E-06 lbs As
Total ash generated = 10% of wood waste fuel (dry) = 0.10 lbs ash
Ash partitioned to fly ash = 0.10 lbs ash X 0.65 = 0.065 lbs fly ash
Ash partitioned to bottom ash = 0.10 lbs ash X 0.35 = 0.035 lbs bottom ash
Arsenic concentration in fly ash = 31.96 E-06 lbs As ÷ 0.065 lbs fly ash = 492 ppm
Arsenic concentration in bottom ash = 2.04 E-06 lbs As ÷ 0.035 lbs bottom ash = 58 ppm

General Equation:

Fly Ash

Ash Element Concentration (ppm) = [ppm of element X fly ash partitioning factor] ÷ [10% ash from wood waste X 65% ash is fly ash]

Bottom Ash

Ash Element Concentration (ppm) = [ppm of element X bottom ash partitioning factor] ÷ [10% ash from wood waste X 35% ash is fly ash]

General Equation - Actual Ash Concentration Partitioning Factor:

Fly Ash

Element Concentration (ppm) Fly Ash = [ppm (element) Fly Ash X 65%] ÷ {[ppm (element) Fly Ash X 65%] + [ppm (element) Bottom Ash X 35%]}

Bottom Ash

Element Concentration (ppm) Bottom Ash = [ppm (element) Bottom Ash X 35%] ÷ {[ppm (element) Fly Ash X 65%] + [ppm (element) Bottom Ash X 35%]}

Table 2. Calculation of Theoretical Metals Concentrations in Woodwaste Fuel, Okeelanta Power L.P. Facility, South Bay, FL.

Parameter	Ash Chemical Analysis (ppm)		Woodwaste Fuel Analysis Dry Basis (ppm) (a)	
	Fly Ash	Bottom Ash	Theoretical	Actual
Arsenic	512	66	35.6	34.0
Barium	187	96	15.5	- -
Cadmium	2.6	ND	0.17	- -
Chromium	462	164	35.8	43.2
Copper	- -	- -	- -	30.3
Lead	202	77	15.8	10.0
Mercury	0.6	ND	0.12 (b)	0.12
Selenium	ND	ND	ND	- -
Silver	ND	ND	ND	- -

Note:
ND = Non Detectable
(a) Assume woodwaste fuel consists of 10% ash, dry basis. Assume 65% of total ash becomes fly ash and 35% of total ash becomes botto
(b) Assume that 30% of the mercury condenses on to the fly ash and 70% volatilizes out the boiler stack.

Example Calculation - Theoretical Woodwaste Fuel Analysis Element Concentration:

Basis = 1 lb of ash
Total arsenic present in fly ash = 512 E-06 lb As per lb of fly ash X 0.65 lb fly ash per lb of ash = 332.8 E-06 lb As per lb of ash
Total arsenic present in bottom ash = 66 E-06 lb As per lb of bottom ash X 0.35 lb fly ash per lb of ash = 23.1 E-06 lb As per lb of ash
Total arsenic present in ash = 332.8 E-06 lb As + 23.1 E-06 lb As = 355.9 E-06 lb As
Total arsenic concentration in wood waste = 355.9 E-06 lbs As X 0.10 lb ash per lb wood waste (dry) = 35.6 ppm (dry)

General Equation for Theoretical Woodwaste Fuel Analysis Element Concentration:
Element Concentration (ppm) = {[ppm (element) in fly ash X 0.65 lb (fly ash)/ lb (ash)] +
[ppm (element) in bottom ash X 0.35 lb (bottom ash)/ lb (ash)]} X 0.10 lb (Ash) / lb (woodwaste)

Table 3. Calculation of Theoretical Metals Concentration in Ash from Combined Woodwaste and Tire-Derived Fuel, Okeelanta Power L.P. Facility, South Bay, FL.

Parameter	Actual Woodwaste Fuel Analysis Dry (ppm)	Tire Derived Fuel Analysis Dry (b) (ppm)	Theoretical Combined Fuel Analysis Dry (c) (ppm)	Theoretical Ash Element Concentration (ppm) (a) Partitioning Factor (d) Fly Ash	Bottom Ash	Fly Ash	Bottom Ash
Arsenic	34.0	7	25	0.94	0.06	435	52
Barium	- -	12	4	0.90	0.10	70	14
Cadmium	- -	6	2	0.90	0.10	35	7
Chromium	43.2	98.5	62	0.84	0.16	983	348
Copper	30.3	950	349	0.90	0.10	5,889	1,215
Lead	10.0	65	29	0.83	0.17	452	172
Mercury	0.12	0.1	0.12	0.30 (e)	N/A	0.7	N/A
Selenium	- -	105	36	0.90	0.10	614	127
Silver	- -	- -	- -	--	--	- -	- -

Note:
N/A = Not Applicable
(a) Assume woodwaste fuel consists of 10% ash (dry basis) and tire derived fuel consists of 4.78% ash.
Assume 65% of total ash becomes fly ash and 35% of total ash becomes bottom ash.
(b) Analysis is based on an average obtained from two literature sources:
1) Waste Recovery, Inc. Bulletin 20.20.1C Dec.1986. and Burning Tires for Fuel and Tire Pyrolysis
2) Burning Tires for Fuel and Tire Pyrolysis: Air Implications. EPA-450/3-91-024.
(c) Fuel mix is 65.4% woodwaste fuel and 34.6% tire-derived fuel, dry basis (75% woodwaste / 25% TDF on an as-fired basis).
(see calculations on following page)
(d) Based on partitioning factors derived from actual ash concentrations. Partitioning factors for barium, cadmium, copper, and selenium are assumed because no actual partitioning factors are available.
(e) Assume that 30% of the mercury condenses on to the fly ash and 70% volatilizes out the boiler stack.

Table 2-11. Maximum Concentration of Metals in Wood Waste Due To Treated Wood Burnin at Okeelanta Power Cogeneration Facility

WOOD WASTE PARAMETERS		
Total Biomass	1,352,941	tons
Total Wood waste	33%	^a
Total Wood waste	446,471	tons
CLEAN WOOD WASTE PARAMETERS		
Total Clean Wood Waste	97%	
	433,076	tons
Arsenic content (1 ppm)	0.43	tons
Chromium content (3 ppm)	1.30	tons
Copper content (15 ppm)	6.50	tons
TREATED WOOD PARAMETERS		
Percent of total wood amount	3.0%	
Total Treated Wood	13,394	tons
Treated wood density	26.3	lb/ft^3
CCA in treated wood	0.47	lb/ft^3
	0.01787	lb CCA/lb treated wood
Total CCA in treated wood	239.4	tons
Total CCA components in treated wood		
Arsenic (13%)	31.1	tons
Chromium (15%)	35.9	tons
Copper (9%)	21.5	tons
WOOD WASTE CONCENTRATIONS		
Total CCA components in wood waste		
Arsenic	31.6	tons
Chromium	37.2	tons
Copper	28.0	tons
Arsenic	70.7	ppm
Chromium	83.3	ppm
Copper	62.8	ppm

^a Expected percentage of total biomass on annual basis.

SPECIFIC CONDITIONS:

9. Prior to operation of the source, the permittee shall submit to the Department an operation and maintenance plan that will allow the permittee to monitor emission control equipment efficiency and enable the permittee to return malfunctioning equipment to proper operation as expeditiously as possible.

10. During land clearing and site preparation, wetting operations or other soil treatment techniques appropriate for controlling unconfined particulates, including grass seeding and mulching of disturbed areas, shall be undertaken and implemented. Any open burning of land clearing debris on this site shall be performed in compliance with Department regulations.

Operational and Emission Restrictions

11. The proposed cogeneration facility steam generating units shall be constructed and operated in accordance with the capabilities and specifications described in the application. The facility shall not exceed 74.9 (gross) megawatt generating capacity, 1 hour average, except during emission compliance and equipment performance tests. Equipment performance testing shall be limited to a 180-day calendar period after initial firing of each boiler. The hourly average generation rate shall be recorded in a log and the log retained for at least 2 years. The maximum heat input rate for each steam generator shall not exceed 715 MMBtu/hr when burning 100 percent biomass and 490 MMBtu/hr when burning 100 percent No. 2 fuel oil or low sulfur coal. Maximum heat input to the entire facility (total all three boilers) shall not exceed 11.5×10^{12} Btu per year. Steam production of each boiler shall not exceed an average of 455,418 lbs/hr at 1,500 psig, 975°F.

12. The primary fuel for the facility shall be biomass--bagasse and wood waste material. Authorized wood waste material is clean construction and demolition wood debris, yard trash, land clearing debris, and other clean cellulose and vegetative matter.

The biomass fuel used at the cogeneration facility shall not contain hazardous substances, hazardous wastes, biomedical wastes, or garbage. The fuel used at the cogeneration facility shall not contain special wastes, except wood, lumber, trees, tree remains, bagasse, cane tops and leaves, and other clean vegetative and cellulose matter.

The permittee shall perform a daily visual inspection of any wood waste or similar vegetative matter that has been delivered to the facility for use as fuel. Any shipment observed to contain prohibited materials shall not be used as fuel, unless such materials can be readily segregated and removed from the wood waste and vegetative matter.

SPECIFIC CONDITIONS:

The permittee shall design and implement a management and testing program for the wood waste and other materials delivered to the facility for fuel. The program shall be designed to keep painted and chemically treated wood, household garbage, toxic or hazardous non-biomass and non-combustible waste material, from being burned at this plant. This program shall be submitted to the Department's Bureau of Air Regulation for review and approval at least 60 days before the commencement of operations of the cogeneration facility. At a minimum, the program shall provide for the routine inspection and/or testing of the fuel at the originating wood yard sites as well as at the cogeneration site, to ensure that the quantities of painted or chemically treated wood in the fuel are minimized. Fuel scheduled for burning shall be inspected daily. Fuel tests shall be conducted weekly for the first year of operations at the facility and monthly thereafter, if the Department determines on the basis of the prior test results that less frequent testing is appropriate. A representative sample of ash for the biomass burned during each month for the first year of operation shall be analyzed for copper, chromium and arsenic by appropriate analytical procedures per 40 CFR 261, Appendix III, described in SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods. Wood waste containing more than 70.7 ppm arsenic or 83.3 ppm chromium or 62.8 ppm copper shall not be burned based on an analysis of a composite sample.

13. Any fuel oil burned in the facility shall be "new" No. 2 fuel oil with a maximum sulfur content of 0.05 percent sulfur as determined by the appropriate test method listed in 40 CFR 60.17. "New" oil means an oil which has been refined from crude oil and has not been used in any manner that may contaminate it.

14. Any coal burned in the facility shall be low sulfur coal with a maximum sulfur content of 0.70 percent and a maximum potential emission equivalent to 1.2 lb SO_2/MMBtu.

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 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.

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_2 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_2 emissions and 12-month rolling average shall be determined (in tons) and kept in a log.

SPECIFIC CONDITIONS:

17. During the first three years of commercial cogeneration facility operation, the existing Boilers Nos. 4, 5, 6, 10, 11, 12, 14, and 15 (Permit Nos. AO50-169210, 190690, 175414, 190693, 175411, 169215, 189904, and 209094, respectively) may be retained for standby operation. During the period from initial firing to commercial operation, all three cogeneration boilers can be operated simultaneously with the existing boilers. Only biomass and No. 2 fuel oil may be used in the cogeneration boilers during this period. If more than 910,836 lb/hr steam is generated in the cogeneration boilers, steam in excess of 910,836 lb/hr must be sent to the Okeelanta sugar mill, and the existing boiler's steam production reduced by an equivalent amount. This period shall not exceed a total duration of 12 months. During this 12-month period, simultaneous operation of the existing boilers and the cogeneration boilers shall not occur on more than a total of 90 calendar days. After the first year of cogeneration facility operation, the existing boilers may be operated only when all three cogeneration boilers are shutdown. During operation, the existing boilers must meet all requirements in the most recent construction and operation permits for the boilers. These existing boilers shall be shutdown and rendered incapable of operation within three (3) years of commercial startup of the cogeneration facility, but no later than January 1, 1999.

18. Boiler No. 16 (AC50-191876) may be retained as a standby boiler for the cogeneration facility provided its permit is amended to authorize standby use. Boiler No. 16 may be operated during initial startup, debugging, and testing of the cogeneration facility for a period not to exceed 12 months following initial firing of fuel in the new boilers. After the first year of cogeneration operation, this boiler may be operated only when one or more of the three cogeneration boilers are shutdown. During operation, this boiler must meet all requirements in the current construction or operating permit for the boiler.

19. For the biomass, coal, fly ash, and mercury control system reactant handling facilities:

a. All conveyors and conveyor transfer points shall be enclosed to preclude PM emissions (except those directly associated with the stacker/reclaimers, for which enclosure is operationally infeasible).

b. Inactive coal storage piles shall be shaped, compacted, and oriented to minimize wind erosion. Sod, wetting agents, synthetic or other appropriate materials shall be used to cover those portions of the inactive coal pile that are prone to wind or water erosion.

SPECIFIC CONDITIONS:

c. Water sprays or chemical wetting agents and stabilizers shall be applied to storage piles, handling equipment, unenclosed transfer points, etc. during dry periods and as necessary to all facilities to maintain an opacity of less than or equal to 5 percent, except when adding, moving or removing coal from the coal pile, which would be allowed no more than 20 percent opacity.

d. The mercury control system reactant storage silos shall be maintained at a negative pressure while operating with the exhaust vented to a filter control system. Particulate matter emissions from each of the three silos shall not exceed a visible emission reading of 5 percent opacity. A visible emission test is to be performed annually on each silo.

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:

	Emission Limit (per boiler)[d]						Total All[e] Three Boilers
	Biomass		No. 2 Oil		Bit. Coal		
Pollutant	(lb/MMBtu)	(lb/hr)	(lb/MMBtu)	(lb/hr)	(lb/MMBtu)	(lb/hr)	(TPY)
Particulate (TSP)	0.03	21.5	0.03	14.7	0.03	14.7	172.5
Particulate (PM_{10})	0.03	21.5	0.03	14.7	0.03	14.7	172.5
Sulfur Dioxide							
3-hour average	---	---	---	---	1.2	588.0	---
24-hour average	0.10	71.5	0.05	24.5	1.2	588.0	---
Annual average	0.02[a]	---	---	---	1.2[a]	---	1,154.3[f]
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							
8-hour average	0.35	250.3	0.2	98.0	0.2	98.0	2,012.5
Volatile Organic Compounds	0.06	42.9	0.03	14.7	0.03	14.7	345.0
Lead	2.5×10^{-5}	0.018	8.9×10^{-7}	0.0004	6.4×10^{-5}	0.031	0.17
Mercury	6.3×10^{-6}[b] 0.29×10^{-6}[c]	0.0045[b] 0.00021[c]	2.4×10^{-6}	0.00118	8.4×10^{-6}	0.0041	0.0300

FLORIDA DEPARTMENT OF HEALTH & REHABILITATIVE SERVICES
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September 9, 1996

WARNING NOTICE
AP-30- 96

Mr. Dennis Space, General Manager
Okeelanta Power Limited Partnership
316 Royal Poinciana Plaza
Palm Beach, Florida 33480

Subject: Okeelanta Cogeneration Plant
AC50-2191413/PSD-FL-196.

Dear Mr. Space:

The Palm Beach County Public Health Unit (PBCPHU) is the delegated local air pollution control program responsible for ensuring compliance for air pollution facilities in Palm Beach County. The purpose of this letter is to advise you of possible violations of state regulations and to seek your cooperation in resolving the matter.

The Health Unit recently performed a review of the report of emissions compliance test, conducted for all three boilers at the above referenced facility in May 1996; a copy of the summary of the review is attached. The emission compliance test report revealed that the Okeelanta Power Limited Partnership (OPLP) failed to comply with the permitted emission standards for various air pollutants, specifically, for Lead (Boiler C), Nitrogen Oxides (Boiler C), Sulfur Dioxide (permitted test method not used), Sulfuric Acid Mist (Boiler A, B & C), Visible Emissions (Boiler A), Mercury (Boiler A, B & C) and Visible Emission Test for Mercury Reactant Silo (failed to test). Florida Statutes 403.161(1)(b), provides that it is a violation to fail to comply with any rule, regulation, order, permit or certification adopted or issued by the Department pursuant to its lawful authority. It appears that the OPLP failed to comply with the emission standards, for the above referenced pollutants, contained in the facility's construction permit, Florida Administrative Code - Rule 62-212.400, Prevention of Significant Deterioration, and Federal Rule 40 CFR 60, NSPS, Subpart Da.

Furthermore, Sections 403.161 and 403.141, Florida Statutes provide that whoever commits a violation shall be liable to the state for any damage caused and civil penalties and/or finds up to $10,000.00 per day or portion thereof.

If your company wishes to pursue the administrative resolution of this matter please contact Mr. Ajaya K. Satyal at Palm Beach County Public Health Unit, 901 Evenria Street, West Palm Beach, Florida 33402, telephone (561) 355-3070, within 14 days of receipt of this letter. A meeting will be arranged with the Palm Beach County Environmental Control Officer, the Health Unit personnel and the representative(s) of the Florida Department of Environmental Protection to discuss the matter. The Health Unit is interested in reviewing any facts that the OPLP may have that will assist in determining whether any violations have occurred.

Failure to respond to this notice could result in further enforcement action.

Sincerely,

Frank J. Gargiulo, P.E., R.S., Director
Division of Environmental Health & Engineering

FJG/AKS/lh

cc: Rebecca Duke, Esq., Environmental Control Officer
James Merimether, OPLP
David Knowles, P.E., DEP, Fort Myers
Jim Pennington, P.E., DARM, Tallahassee
Al Linero, P.E. DARM, Tallahassee

CC: W. Hanks
S. Arif
M. Harley

R File

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.

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,

for

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

AAL/sa/t

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

Florida Department of

Memorandum — Environmental Protection

TO: Syed Arif

FROM: Kathy Anderson, Solid Waste Section SKA 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.

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 addessed 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.

FLORIDA DEPARTMENT OF HEALTH & REHABILITATIVE SERVICES

Working in partnership with local communities to help people be self-sufficient, experience good health and live in stable families and communities.

August 5, 1996

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

Re: Cogeneration Power Plants - Tire Derived Fuel (TDF)
Okeelanta Power Ltd. and Osceola Power Ltd.
Second Comments

Dear Mr. Linero:

The Health Unit has reviewed the additional information received regarding the above projects and has the following comments. I have numbered my comments to correspond with the additional information submittal for Osceola Power Ltd.

Comments on Response to DEP Request for Additional Information

(1) We agree that there are operational and equipment difficulties with the boilers at Osceola Power. The request for an extension of the requirement to test within 60-days of reaching maximum production should be granted. We also believe that many operational and equipment problems continue to exist at Okeelanta Power, as evidenced by several failed performance tests.

(2) These facilities receive yard waste, i.e., commingled yard waste and construction and demolition debris. Originally, the air permits were modified to restrict the boilers to burn less than 30% municipal solid waste (MSW) by weight in order to avoid additional NSPS requirements. To date, tests on biomass received at the cogeneration sites have tested high for arsenic and TCLP ash tests have seen high results for both arsenic and chromium. We find it difficult to support adding another MSW fuel (TDF) before the fully functional and operating in compliance with the *currently permitted fuels*.

(3) No comment.

(4) Recent testing at Okeelanta Power has indicated several failed tests for mercury emissions as well as lead. The applicant states that maximum short term mercury emissions occur during coal firing, yet the failures occurred during biomass firing. The Health Unit does not believe there is reasonable assurance that the facility can meet the current mercury emissions limit or continuously meet the lead emission limit.

(5) The Health Unit is willing to consider tire derived fuel as a tradeoff for burning coal. However, we would prefer the applicant to pursue this additional fuel source after the power generation facility is fully operational and in compliance with the emission limiting standards for the currently permitted fuels.

(6) Again, recent TCLP ash tests indicate high levels of arsenic and chromium in the ash from burning biomass fuels.

(7) Again, recent TCLP ash tests indicate high levels of arsenic in the ash from burning biomass fuels.

DISTRICT IX
PALM BEACH COUNTY PUBLIC HEALTH UNIT - P.O. BOX 29 - WEST PALM BEACH, FL. 33402
LAWTON CHILES, GOVERNOR

Comments on Response to PBCPHU Request for Additional Information

(1-3) No comments.

(4) We agree that potential HCl emissions are an order of magnitude lower than potential SO_2 emissions, however, so are the major source applicability thresholds. The increase in HCl emissions will make this facility a major source of this hazardous air pollutant. The facility has installed a storage silo and injection system for activated carbon to control mercury emissions. There are products available on the market which consist of the combination of activated charcoal and lime which could be used with the existing injection equipment and ESPs to provide control for the acid gases. We recommend at least initial tests be performed to determine uncontrolled HCl emission levels.

(5) We realize that this facility will not be burning "garbage". However, TDF contains a substantially higher chlorine content than the current fuels which leads us to believe that the conditions exist which may cause the formation of dioxins and furans in the flue gas. If TDF becomes a permitted fuel, we recommend at least initial tests be performed to determine the levels of dioxins and furans while burning TDF. Tested levels should be below NSPS levels for municipal waste combustors as well as any ARC.

(6) The PSD permits require sulfuric acid mist (SAM) to be tested by EPA Method 8. Tests performed using this method at Okeelanta failed the SAM limits in the permit. The test team made modifications to the test method to remove interference from the combination of high moisture and SO_2 present in the flue gas. The DEP Emissions Monitoring Section should make a determination on whether or not the modified test method used is acceptable for this facility and whether or not it indicates compliance with the permit limit.

(7) Does the Department consider burning TDF in these cogeneration plants similar enough in nature to burning wood residue in a paper mill to constitute "reasonable assurance"?

CONCLUSION AND RECOMMENDATIONS

If these units were fully operational and had passed all required emissions performance tests, the Health Unit would not be as hesitant in approving TDF as a replacement fuel for coal. However, this is not the case. There have been numerous construction and equipment problems which have resulted in delays and shutdowns. Biomass has been received on site which tested high for metals. Ash tests have also indicated elevated metals content. Emissions performance tests indicate failure to meet the emission limiting standards for lead, nitrogen oxides, sulfuric acid mist, mercury, and visible emissions. The Health Unit asks the Department to request a withdrawal of the application for a permit to authorize the burning of tire derived fuels until such a time that the cogeneration plants are fully operational and able to comply with the current conditions of the air construction permit.

Also, I am enclosing the following reports for your records:

- Summary of the Okeelanta Power Ltd. Compliance Test Review (Performed by the Health Unit)
- Summary of the Ash Issues at Okeelanta Power Ltd. (Solid / Hazardous Waste Sections of DEP, Tallahassee)

If you have any questions on these comments please contact me at the numbers below.

Sincerely,

For the Division Director
Environmental Health and Engineering

Jeffery J. Koerner

Jeffery F. Koerner, PE
Air Pollution Control Section
Phone: (407) 355-4549 FAX: (407) 355-2442

CC: D. Buff, KBN
✓ D. Knowles, SD
EPA
NPS
S. Arif, BAR

Filename: COGEN_2.CMT

Okeelanta Power Limited Partnership
Cogeneration Facility
Summary of Compliance Testing, May 1996

The Okeelanta Power Limited Partnership (OPLP) owned cogeneration facility has three spreader stoker boilers which are fired with biomass (bagasse and wood chips) as primary fuel and No. 2 fuel oil as an start-up fuel. This facility is also permitted to use coal with low sulfur content. This facility currently possesses a source construction permit from Florida Department of Environmental Protection.

Each boiler at the facility has a heat input of 715 million british thermal unit (MMBTU) / hour on biomass and 490 MMBTU / hour on fossil fuel. The design capacity for steam production for each boiler is 455,400 pounds/ hour (lb/hr) of steam at 1,500 psig and 975 degree F.

Each boiler is equipped with an electrostatic precipitator (ESP), a thermal De NOx system, and an activated carbon injection system to control particulate matter, nitrogen oxides, and mercury emissions. Emission controlled flue gas from each boiler is exhausted out in to the ambient air through its 242 feet tall stack.

The facility contracted with the Clean Air Engineering ,Inc. to conduct the required compliance tests for the various regulated pollutants. The test was performed in the month of May 1996. Required test notifications and its amendments were submitted to by the Palm Beach County Public Health Unit. Test reports for Boiler A and Boiler B were received on July 15, 1996. Report for Boiler C was received on July 25, 1996.

The emission rate of lb/MMBTU was calculated using a fuel factor (F-factor) of 8489 dry standard cubic feet(dscf)/ MMBTU. This was obtained from fuel analysis of five fuel samples. For Boiler C, the fuel factor of 9567 dscf/MMBTU was utilized after analysis of 11 fuel samples.

Emissions test results:

1. Particulate and PM10 Emissions	Passed emissions standards for Boiler A, B and C.
2. Lead Emissions	Boiler C failed the lb/MMBTU limit. Actual emissions were 2.8*E-5 lb/MMBTU, allowable standard is 2.5*E-5 lb/MMBTU.
3. Nitrogen Oxides Emissions	Boiler C failed the lb/MMBTU limit. Actual emissions were .16 lb/MMBTU, allowable standard is .15 lb/MMBTU.
4. Carbon Monoxides and VOC	Passed emissions standards for Boiler A, B and C.

5. Sulfur Dioxides Emissions	For all the boilers, permitted test methods for this pollutant are Method 6, 6C or 19. Test was performed using Method 8. Even though the emissions from the test are showing compliance with the permitted standard, the results are unacceptable.
6. Sulfuric Acid Mist Emissions	Failed compliance test for all the boilers when tested utilizing the permitted specified method. Facility informed the PBCPHU about this during the testing period and decided to run tests using Modified Method 8. It is argued that high levels of sulfuric acid mist was due to suspected positive bias caused by interference from the combination of high percent of moisture and sulfur dioxide in the flue gas resulting in the standard Method 8 samples to be non-representative of the actual stack gas concentration of sulfuric acid mist.
7. Visible Emissions	Test failed for Boiler A. The Visible Emissions evaluation performed on 5/11/96 at 12:30-13:30 failed the emission standards. The rolling average of one hour reading indicates several six minutes average above 20% and 27% opacity.
8. Mercury Emissions	Test failed for Boilers A, B and C. Allowable emissions for wood waste are .29*E-6 lb/MMBTU and .00021 lb/hr. Actual emissions for Boiler A were .97*E-6 lb/MMBTU and .000673 lb/hr. For Boiler B, the emissions were .96*E-6 lb/MMBTU and .00067 lb/hr. For Boiler C, the emissions were 1.7*E-6 lb/MMBTU and .0011 lb/hr.
9. Arsenic, Chromium, Copper, and Beryllium	No emission standard for biomass in the permit. All these pollutants were tested using the specified methods in the permit.
10. Testing within rated capacity	All the tests were conducted within the 10% of the design capacity of steam production rate.
11. Visible Emissions Test for Mercury Reactant Silo	Not included with the test reports.

Okeelanta Cogeneration Facility
Ash Issues

The Solid Waste Section of the FDEP in Tallahassee and the Hazardous Waste Section of the South District office of FDEP are in the process of reviewing the test results of the boiler ash for the above referenced facility. The test results extend over the period of November 1995 to April 1996. It was observed for the Okeelanta facility that out of 11 samples of fly ash taken that 3 samples appeared to fail for the toxicity characteristic leaching procedure (TCLP) for chromium. It was also observed that the average total metals concentration of arsenic in the fly ash was 493 mg/kg, exceeding the FDEP Bureau of Waste Clean-Up's soil clean-up goals guidance value of 0.8 mg/kg for residential use and 3.7 mg/kg for industrial use.

On July 18,1996 Kathy Anderson, Mary Jean Yon and Richard Tedder of the FDEP Tallahassee Solid Waste Section met with Mr. James Merriwether, environmental manager for the facility, in Tallahassee to discuss issues pertaining to the metals concentrations in the fly ash and concerns with land application of the fly ash. Mr. Merriwether stated he did not believe the earlier fly ash samples were representative of normal facility operations due to a blade deterioration problem in the process fans. He also stated that to fully evaluate the toxicity characteristic (TC) of the ash, the facility would perform an initial characterization of the ash residue when the facility was fully operational in September of 1996. Additionally he stated that the facility would perform ash characterization in accordance with the EPA's Guidance For The Sampling And Analysis Of Municipal Waste Combustion Ash For The Toxicity Characteristic, June 1995.

The Tallahassee Solid Waste Section and the Hazardous Waste Section of the South District office of FDEP agree the facility should use the TC protocol by EPA. Once the facility adequately characterizes their ash, the FDEP will review the data presented.

On July 30,1996 Mr. Merriwether telephoned Ms. Anderson and stated that the facility would be sending the FDEP a letter of their intent to sample the ash for the TC and total metals concentrations when the facility is fully operational. Mr. Merriwether also stated that the facility anticipates land applying their ash on the sugar cane farm once the facility is fully operational. In the interim, the facility is stockpiling the ash on-site in the wood fuel pile area.

KBN
A GOLDER ASSOCIATES COMPANY

File

July 17, 1996

Mr. Al Linero, P.E.
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 33493

RECEIVED
JUL 19 1996
BUREAU OF
AIR REGULATION

Re: Okeelanta Power Limited Partnership
Tire-Derived Fuel Permit Amendment
Facility ID No. 0990332
Permit File No. AC50-219413; PSD-FL-196A

Dear Mr. Linero:

KBN Engineering and Applied Sciences, Inc. (KBN) has prepared the following responses to your request for additional information concerning the request to utilize tire-derived fuel at the Okeelanta Power Limited Partnership cogeneration facility.

1. On March 26, 1996, the Palm Beach County Public Health Unit (PBCPHU) granted Okeelanta Power an extension of the 60 day requirement to perform stack testing on Boilers A and B, as required by Specific Condition No. 21 of permit AC50-219413 (see attached letter). On March 11, 1996, the PBCPHU waived the requirement to test Boiler C within the 60 day requirement stated in Specific Condition No. 21. It is noted that initial compliance testing on all three boilers was performed during the month of May 1996.

2. To comply with the 30 percent or less by weight limit on municipal solid waste (MSW) as stated in the definition of "cofired combustor" under 40 CFR 60, Subparts Ea and Cb, Okeelanta Power will set up a weigh scale specifically to meter and record the amount of tire-derived fuel (TDF) that is fed to the boilers. Due to the nature and the state in which Okeelanta Power receives yard waste (i.e., co-mingled yard waste and construction and demolition debris), Okeelanta plans to obtain supplier certification analysis documenting the percentage of yard waste it receives in each delivery. This information along with the weight of each delivery will be used to determine the weight of MSW in each delivery. This data will be compiled, along with the amount of other fuels burned, and totaled on a calendar quarter basis to demonstrate compliance with the 30 percent by weight limitation, as required by the New Source Performance Standards (NSPS).

3. There will be no increase above the current allowable lead emissions of 0.031 lb/hr and 0.17 TPY due to TDF burning. These maximum emissions occur under maximum coal firing conditions. As shown in Table 2-7 of the application, the lead emission factor for TDF of 4.2E-05 lb/MMBtu is lower than that for coal (6.4E-05 lb/MMBtu). As shown in Table 2-8, the annual lead emission when burning the maximum amount of TDF (0.1653 TPY) is less than emissions when burning the maximum amount of coal (0.17 TPY). Due to limitations on SO_2 emissions, it would not be possible to burn the maximum amount of coal and also burn TDF, or to burn the maximum amount of TDF and also burn coal.

6241 Northwest 23rd Street, Suite 500, Gainesville, Florida 32653-1500, 352-336-5600 FAX 352-336-6603
5405 West Cypress Street, Suite 215, Tampa, Florida 33607, 813-287-1717 FAX 813-287-1716
1801 Clint Moore Road, Suite 105, Boca Raton, Florida 33487, 407-994-9910 FAX 407-994-9393
7785 Baymeadows Way, Suite 105, Jacksonville, Florida 32256, 904-739-5600 FAX 904-739-7777
1616 'P' Street NW, Suite 350, Washington, DC 20036, 202-462-1100 FAX 202-462-2270

4. The quantity of ash (bottom, siftings, and fly) generated from TDF combustion can be calculated from the TDF ash content of 4.78 percent and the maximum TDF usage of 81,600 TPY. This yields 3,900 TPY of ash due to TDF burning. The concentration of each element in the TDF ash is presented in Table 1. These calculations are based on the TDF fuel analysis (presented in Table 2-6 of the permit application), the maximum amount of TDF to be burned, the TDF ash content, and the electrostatic precipitator (ESP) removal efficiency.

   Please note that Table 1 presents concentrations of elements as if they were all incorporated into the TDF ash only. However, TDF will be burned in combination with biomass, which, on average, will generate about 5 times more ash than TDF burning will generate. Thus, actual trace element concentrations in the ash due to combined biomass/TDF firing will be much lower than those shown in Table 1.

   Tentatively, Okeelanta Power plans to dispose of the ash generated during TDF firing at the Chambers Landfill at Lake Okeechobee.

Presented below are responses to PBCPHU comments dated June 13, 1996.

1. The facility does not plan to receive any whole tires. All tires will be chipped offsite and shipped to Okeelanta Power by truck. The only additional equipment installed to accommodate TDF will be a feed hopper and conveyor belt. TDF unloaded in the TDF storage area will be moved by front-end loader and placed in the feed hopper. This hopper will feed to a conveyor belt, which will discharge onto the main biomass conveyor belt.

2. It is currently planned to relocate the ID fans to downstream of the ESPs. The relocation is scheduled to take place from July through September 1996. One boiler will be maintained and two will be taken offline to allow the facility to conduct the relocation operation during this period. There are no plans currently to modify the fuel handling system to handle TDF fuel. The present system is considered adequate to handle the tire chips.

3. (a) The facility is requesting exemption from 40 CFR 60 Subpart Cb as a "cofired combustor." The rule citation is 40 CFR 60.32b(I). This exemption is the same exemption provided for under 40 CFR 60, Subpart Ea, which exempts all units which combust less than 30 percent by weight of MSW on a calendar quarter basis.

   (b) The facility is subject to 40 CFR 60, Subpart Da.

   (c) The statement is correct. The facility is requesting exemption from 40 CFR 60 Subpart Ea as a "cofired combustor." The rule citation is 40 CFR 60.50a(d). This provision exempts all units which combust less than 30 percent by weight of MSW on a calendar quarter basis.

4. Emissions of hydrochloric (HCl) from the Okeelanta Power facility are projected to increase with the burning of TDF. This is due to the chlorine content of the TDF. These emission estimates assume that all the chlorine in the TDF is emitted as HCl, and that none is removed in the air pollution control equipment. In reality, a portion of the acidic HCl gases should be absorbed into the alkaline

fly ash. Studies performed by National Council of the Paper Industry for Air and Stream Improvement, Inc. (NCASI), have demonstrated upwards of 25 percent to 75 percent removal of SO_2 due to alkaline fly ash. HCl gases should be absorbed in a similar manner. No specific control equipment is planned at this time for HCl. No detrimental effect due to HCl in the flue gases is expected. The potential HCl emissions are approximately an order of magnitude lower than potential SO_2 emissions, and no problems are expected due to SO_2 emissions.

5. It is emphasized that the facility will not be burning garbage (MSW or RDF) in the classic sense. The facility will be burning clean wood waste, which may have minor contaminants (plastics, fabrics, leather, metal, etc.) in trace amounts. The only reason that some of the wood waste burned at the facility is classified as MSW is because of the broad definition of MSW in the NSPS. The definition classifies "yard waste" as MSW. "Yard waste" is defined as any vegetative material generated from residential, commercial, retail, institutional or industrial sources. Some of the wood waste burned at the facility may originate from these sources.

   Dioxans and furans resulting from combustion of household garbage (MSW in the traditional sense of the word) or RDF are attributed primarily to the chlorine content of the MSW/RDF and combustion conditions. MSW contains approximately 0.5 percent chlorine. The MSW/RDF fuel is nonuniform in nature; the heating value, moisture content, and mixture of metals, non-metals, etc., varies considerably. These aspects result in incomplete combustion of the fuel and the resulting formation of dioxans/furans. In contrast, TDF is a very uniform, low-moisture fuel with a high heating value compared to MSW/RDF. In addition, the chlorine content is much lower, approximately 0.15 percent. Based on these aspects, as well as the fact that TDF will be burned in combination with biomass, at relatively low percentages, it was concluded that it is more appropriate to use emission factors based on wood waste firing. Also, the maximum annual dioxin impact predicted for the Okeelanta Power facility is 3 orders of magnitude below the Florida ambient reference concentration (FARC); therefore no threat to the public is anticipated due to TDF firing.

6. The current permit limit for sulfuric acid mist (SAM) is 0.003 lb/MMBtu. A higher emission rate was specified in the application for TDF to account for the higher sulfur in the fuel. The emission factor for TDF is 0.01 lb/MMBtu.

   Stack testing of Boiler A at Okeelanta Power was performed during May 1996 and the final report was submitted to the PBCPHU on July 11,1996. Early testing performed using U.S. Environmental Protection Agency (EPA) Method 8 for SAM showed exceedances of permitted SAM limits. Later in May, additional SAM emission testing using EPA Method 8 was conducted simultaneously with a modified EPA Method 8 test. The testing showed that initial results previously obtain using EPA Method 8 were positively biased primarily due to interferences from the combination of high flue gas moisture and SO_2.

   Using a modified EPA Method 8 test, SAM emissions were approximately one-third of the permitted limit while burning wood waste. Based on the modified Method 8 results for wood waste combustion, Okeelanta expects to achieve similar results while firing a mixture of biomass and TDF.

7. In the NCASI document cited, the term "ton wood residue" means the tons of wood waste burned in the boiler. NCASI sometimes terms woodwaste material as "wood residue," since in a paper mill, the wood waste can come from bark, sawdust, and wood chips.

It has also come to our attention that some of the pollutant pages in the application were incorrect in regards to some of the lb/hr and TPY potential emissions from each boiler. The confusion stemmed from the fact that the total emissions from all three boilers cannot exceed certain TPY limits, but each individual boiler may have additional flexibility. The corrected application pages are attached, along with the supportive emission tables for a single boiler operating at maximum (Tables 2, 3, and 4 attached). These changes were incorporated into the recent Title V application for the facility.

If you have any questions or need other information, please call me.

Sincerely,

David A. Buff

David A. Buff
Principal Engineer
Florida Registration 19011

DB/mk

Attachments

cc: James Meriwether, Okeelanta Power
Bill Tarr, Flo-Sun, Inc.
Paul Wesson, KBN
File (2)

CC: EPA
NPS
Palm Bch Co.
SD
S. Arif, BAR

STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES

ESE-WPB

March 11, 1996

James M. Meriwether
Environmental Health
and Safety Representative
Okeelanta Power Limited Partnership
P.O. Box 8
South Bay, Florida 33493

Re: Okeelanta Cogeneration Facility Emission Test Schedule
AC 50-219413/PSD-FL-196.

Dear Mr. Meriwether:

This is written in response to your letters dated March 5, 1996 and March 8, 1996.

In the first letter you have provided the emission test scheduled for the cogeneration facility; and have requested that the requirement to test Boiler C within 60 days be waived. The Palm Beach County Public Health Unit (PBCPHU) has discussed your request with the Florida Department of Environmental Protection and hereby waives the requirement to test Boiler C within 60 days. The PBCPHU understands that Okeelanta Power Limited Partnership (OPLP) will initiate testing as soon as possible.

In the later letter, dated March 8, 1996, you have requested that OPLP be allowed to test its boilers at their normal operating conditions (i.e. 70 to 80% of the permitted heat input). The Specific Condition #21 (a) of your PSD permit requires compliance testing within 10% of the permitted heat input. We have reviewed your request and provide the following comment. Rule 62-297, Stationary Sources Emission Monitoring, Section 62-297.310(2) general Test Requirements, allows conducting emission test at a limit less than the permitted capacity, but subsequently the emissions unit will be limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum operation rate allowed by the permit.

DISTRICT IX
PALM BEACH COUNTY PUBLIC HEALTH UNIT • P.O. BOX 29 • WEST PALM BEACH, FLORIDA 33402
LAWTON CHILES, GOVERNOR

The PBCPHU would not object to testing at a lower capacity, but OPLP needs to be aware that any deviation from this rule would put the cogeneration facility out of compliance. A copy of the above cited rule is attached for your information.

Please call us (407) 355-3070, if you have any questions.

Sincerely,

For the Division Director
Environmental Health & Engineering

Ajaya Satyal

Ajaya K. Satyal, Environmental Manager
Air Pollution Control Section

FJG/AKS/lh

cc: David Knowles, P.E., Florida Department of Environmental Protection

APR ... 1996

STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES

ESE-WPB

March 26, 1996

James M. Meriwether
Environmental Health
and Safety Representative
Okeelanta Power Limited Partnership
P.O. Box 8
South Bay, Florida 33493

Re: Okeelanta Cogeneration Plant
AC 50-219413/PSD-FL-196.

Dear Mr. Meriwether:

This is in response to your letter dated March 15, 1996 requesting a review of the current situation and waiver for Boiler A and Boiler B from the requirement of testing within 60 days of reaching maximum continuous rating (MCR) condition. In the letter you have described difficulties in scheduling the compliance test because of various reasons including a need to modify the I.D. fans to test at the permitted capacity.

The Palm Beach County Public Health Unit (PBCPHU) has discussed your request with the Florida Department of Environmental Protection (FDEP) and grants a time extensions to meet the requirement to test within 60 days of reaching MCR to May 31, 1996.

Also, the compliance tests for all three boilers (A,B and C) shall be completed no later than 180 operational days after initial startup according to NSPS. From your previous correspondence, the start-up date for Boilers A, B and C were 1/10/96, 12/27/95, and 11/21/95 respectively. If the test cannot be performed within 90% of the permitted capacity, the Okeelanta Power Limited Partnership (OPLP) may consider testing at a lower capacity (thereafter the facility would be limited to 110% of the test rate) to meet this 180 days requirement.

DISTRICT IX
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LAWTON CHILES, GOVERNOR

Then once the plant is capable of operating at a maximum capacity, OPL would retest within 15 days to regain authority to operate at the permitted capacity. You are requested to provide the notification of compliance test at least 15 days prior to test date. The notification for CEM performance specification test shall be submitted 30 days in advance as required by the permit.

Please be advised that our approval of your request does not preclude third party challenges to this action. Therefore, OPLP should make a concerted effort to meet the federal requirements. Also, you are requested to provide the number of operational days logged for all three boilers since the startup date to PBCPHU within 14 days.

Please give us a call at (407) 355-3070, if you have any questions.

Sincerely,

For the Division Director
Environmental Health & Engineering

Ajaya Satyal

Ajaya K. Satyal, Environmental Manager
Air Pollution Control Section

FJG/AKS/lh

cc: David Knowles, P.E., South Florida District, FDEP
Jim Pennington, P.E., DARM, FDEP, Tallahassee

Table 1. Summary of Tire Derived Fuel Ash Chemical Analysis at Okeelanta Power L.P. Facility

Parameter	Reference 1 Analysis	Reference 2 Analysis	Average Value	ESP Control Eff. (%)	Ash Element Concentration (ppm)
	(% by wt.)	(% by wt.)			
Carbon	83.87	83.87	83.87	--	--
Hydrogen	7.09	7.09	7.09	--	--
Oxygen	2.17	2.17	2.17	--	--
Nitrogen	0.24	0.24	0.24	--	--
Sulfur (a)	1.23	1.23	1.23	--	--
Ash	4.78	4.78	4.78	--	--
	(ppm)	(ppm)	(ppm)		
Aluminum		900	900	99	18,640
Antimony	--	0.01	0.01	99	0
Arsenic	--	7	7	99	145
Barium	--	12	12	99	249
Beryllium	--	0.7	0.7	99	14
Cadmium	6	6	6	99	124
Chromium	97	100	98.5	99	2,040
Chlorine (b)	1,490	--	1490	0	31,172
Cobalt	--	500	500	99	10,356
Copper	--	950	950	99	19,676
Fluoride	10	--	10	0	209
Lead	65	--	65	99	1,346
Manganese	--	1,000	1000	99	20,711
Mercury	--	0.1	0.1	0	2
Molybdenum	--	70	70	99	1,450
Nickel	--	60	60	99	1,243
Selenium	--	105	105	99	2,175
Tin	--	0.01	0.01	99	0
Uranium	--	0.04	0.04	99	1
Vanadium (ppm)	--	1	1	99	21
Zinc (ppm)	15,200	13,000	14100	99	292,029

(a) Based on suflur capture achievable due to alkaline fly ash.
(b) Assumed to be emitted as hydrogen chloride (HCl).
References:

1. Waste Recovery, Inc. Bulletin 20.20.1C Dec. 1986.
2. Burning Tires for Fuel and Tire Pyrolysis: Air Implications. EPA-450/3-91-024.

Example Calculations

Ash Element Concentration (ppm) = (ppm of element * 1E-06 * Control Efficiency if applicable* 81,600 TPY of tires) ÷ (81,600 TY of tires * 4.78% ash/ton of tires) *1E06

Total aluminium present = 900 * 1E-06 X 81,000 TPY of tires = 73.44 Tons Al
Total aluminium collected in ESP = 73.44 Tons X 0.99 = 72.71 Ton Al
Total ash generated = 81,000 TPY of tires X 4.78% ash = 3,900 Tons ash
Aluminum concentration in ash = 72.71 ÷ 3,900 * 1E06 = 18,640 ppm

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

Regulated Pollutant	Biomass Emission Factor (lb/MMBtu)	Biomass Activity Factor (E12 Btu/yr)	Biomass Annual Emissions (TPY)	Alternate Fuel Emission Factor (lb/MMBtu)	Alternate Fuel Activity Factor (E12 Btu/yr)	Alternate Fuel Annual Emissions (TPY)	Total Annual Emissions (TPY)
			100% Biomass				
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	4.196 b	41.96	--	--	--	93.63
- Wood waste	0.05	2.067 c	51.67				
Nitrogen oxides	0.15	4.196	314.72	--	--	--	314.72
Carbon monoxide	0.35	4.196	734.34	--	--	--	734.34
VOC	0.06	4.196	125.89	--	--	--	125.89
Lead	2.5E-05	4.196	0.052	--	--	--	0.052
Mercury - Bagasse	6.30E-06	4.196 b	0.0132	--	--	--	0.0135
- Wood Waste	2.90E-07	2.067 c	0.00030				
Beryllium	--	--	--	--	--	--	--
Fluorides	--	--	--	--	--	--	--
Sulfuric acid mist	0.0006	6.263	1.88	--	--	--	1.88
			75.1% Biomass / 24.9% Fuel Oil				
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	0.05	1.468	36.70	102.90
- Wood waste	0.05	1.461 c	36.53				
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	2.5E-05	4.428	0.055	8.9E-07	1.468	0.0007	0.056
Mercury - Bagasse	6.30E-06	2.967 b	0.0093	2.4E-06	1.468	0.0018	0.011
- Wood Waste	2.90E-07	1.461 c	0.00021				
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
			75.1% Biomass / 24.9% Coal				
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	2.5E-05	4.428	0.055	6.4E-05	1.468	0.0470	0.1023 a
Mercury - Bagasse	6.30E-06	2.967 b	0.0093	8.4E-06	1.468	0.0062	0.0157
- Wood Waste	2.90E-07	1.461 c	0.00021				
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
			80% Biomass / 20% Tire-Derived Fuel				
Particulate (TSP)	0.03	3.733	56.00	0.03	2.530	37.95	93.95 a
Particulate (PM10)	0.03	3.733	56.00	0.03	2.530	37.95	93.95 a
Sulfur dioxide - Bagasse	0.02	2.501 b	25.01	0.8	2.530	1,012.00	1067.81 a
- Wood waste	0.05	1.232 c	30.80				
Nitrogen oxides	0.15	3.733	279.98	0.15	2.530	189.75	469.73 a
Carbon monoxide	0.35	3.733	653.28	0.35	2.530	442.75	1096.03 a
VOC	0.06	3.733	111.99	0.06	2.530	75.90	187.89 a
Lead	2.5E-05	3.733	0.047	4.2E-05	2.530	0.0531	0.0998
Mercury - Bagasse	6.30E-06	2.501 b	0.0079	6.5E-06	2.530	0.0082	0.0163 a
- Wood Waste	2.90E-07	1.232 c	0.00018				
Beryllium	--	--	--	4.5E-07	2.530	0.00057	0.00057
Fluorides	--	--	--	6.5E-04	2.530	0.82	0.8223
Sulfuric acid mist	0.0006	3.733	1.12	0.0069	2.530	8.73	9.85

a Denotes maximum annual emissions for any fuel scenario.
b Represents 67% of total heat input.
c Represents 33% of total heat input.
Note: No emissions of total reduced sulfur, asbestos, or vinyl chloride are expected.

Table 3. Maximum Annual Emissions of Hazardous/Toxic Air Pollutants per Boiler at Okeelanta Power Facility

Pollutant	Biomass Emission Factor (lb/MMBtu)	Biomass Activity Factor (E12 Btu/yr)	Biomass Annual Emissions (TPY)	Alternate Fuel Emission Factor (lb/MMBtu)	Alternate Fuel Activity Factor (E12 Btu/yr)	Alternate Fuel Annual Emissions (TPY)	Annual Emissions (TPY)
			100% Biomass				
Hazardous Air Pollutants							
Acetaldehyde	7.80E-04	6.263	2.44	--	--	--	2.44 a
Acetophenone	3.70E-06	6.263	0.012	--	--	--	0.012 a
Acrolein	6.50E-05	6.263	0.20	--	--	--	0.20 a
Antimony	UD	6.263	--	--	--	--	--
Arsenic	5.65E-05	6.263	0.18	--	--	--	0.18 a
Benzene	1.30E-03	6.263	4.07	--	--	--	4.07 a
Beryllium	--	6.263	--	--	--	--	--
Cadmium	8.40E-07	6.263	0.0026	--	--	--	0.0026
Carbon Disulfide	1.30E-04	6.263	0.41	--	--	--	0.41 a
Carbon Tetrachloride	6.00E-06	6.263	0.019	--	--	--	0.019 a
Chlorine	9.20E-04	6.263	2.88	--	--	--	2.88 a
Chloroform	4.70E-05	6.263	0.15	--	--	--	0.15 a
Chromium	5.55E-05	6.263	0.17	--	--	--	0.17 a
Chromium +6	1.11E-05	6.263	0.035	--	--	--	0.035 a
Cobalt	1.50E-07	6.263	4.7E-04	--	--	--	4.7E-04
Cumene	1.80E-05	6.263	0.06	--	--	--	0.06 a
Di - n - butyl Phthalate	5.80E-05	6.263	0.18	--	--	--	0.18 a
Ethyl Benzene	3.90E-06	6.263	0.012	--	--	--	0.012 a
Formaldehyde	1.30E-03	6.263	4.07	--	--	--	4.07 a
n Hexane	5.50E-04	6.263	1.72	--	--	--	1.72 a
Hydrogen Chloride	5.60E-04	6.263	1.75	--	--	--	1.75
Lead	2.50E-06	6.263	0.008	--	--	--	0.008
Manganese	9.50E-05	6.263	0.30	--	--	--	0.30
Mercury - Bagasse	6.30E-06	6.263	0.020	--	--	--	0.020
-Wood Waste	2.90E-07	6.263	0.0009	--	--	--	0.0009 a
Methanol	1.50E-03	6.263	4.70	--	--	--	4.70 a
Methyl Ethyl Ketone	1.20E-05	6.263	0.038	--	--	--	0.038 a
Methyl Isobutyl Ketone	8.60E-04	6.263	2.69	--	--	--	2.69 a
Methylene Chloride	1.50E-03	6.263	4.70	--	--	--	4.70 a
Napthalene	5.90E-04	6.263	1.85	--	--	--	1.85 a
Nickel	6.30E-06	6.263	0.020	--	--	--	0.020
Phenols	4.10E-05	6.263	0.13	--	--	--	0.13 a
Phosphorus	1.60E-06	6.263	0.0050	--	--	--	0.0050
POM (Polycyclic Org. Matter)	2.20E-07	6.263	0.0007	--	--	--	0.0007
Selenium	3.80E-06	6.263	0.012	--	--	--	0.012
Styrene	1.50E-05	6.263	0.047	--	--	--	0.047 a
2, 3, 7, 8 -TCDD (dioxin)	6.00E-12	6.263	1.9E-08	--	--	--	1.9E-08 a
Toluene	9.00E-05	6.263	0.28	--	--	--	0.28 a
1, 1, 1 Trichloroethane	1.70E-04	6.263	0.53	--	--	--	0.53 a
Trichloroethylene	7.60E-06	6.263	0.024	--	--	--	0.024 a
m&p Xylene	7.80E-06	6.263	0.024	--	--	--	0.024 a
o Xylene	2.60E-06	6.263	0.008	--	--	--	0.008 a
Total HAPs							33.750
112 (r) (non-HAPs)							
Ammonia	1.48E-02	6.263	46.35	--	--	--	46.35
Bromine	4.59E-05	6.263	0.14	--	--	--	0.14
Flourine	--	6.263	--	--	--	--	--
Other Air Toxics							
Barium	1.06E-04	6.263	0.33	--	--	--	0.33 a
Copper	7.25E-05	6.263	0.23	--	--	--	0.23
Indium	1.27E-04	6.263	0.40	--	--	--	0.40 a
Molybdenum	2.24E-07	6.263	0.0007	--	--	--	0.0007
Silver	1.40E-06	6.263	0.0044	--	--	--	0.0044 a
Thallium	UD	6.263	--	--	--	--	--
Tin	3.65E-08	6.263	1.1E-04	--	--	--	1.1E-04
Uranium	--	6.263	--	--	--	--	--
Vanadium	--	6.263	--	--	--	--	--
Zinc	4.24E-04	6.263	1.33	--	--	--	1.33
Zirconium	4.12E-07	6.263	0.0013	--	--	--	0.0013 a

Table 3. Maximum Annual Emissions of Hazardous/Toxic Air Pollutants per Boiler at Okeelanta Power Facility

Pollutant	Biomass Emission Factor (lb/MMBtu)	Biomass Activity Factor (E12 Btu/yr)	Biomass Annual Emissions (TPY)	Alternate Fuel Emission Factor (lb/MMBtu)	Alternate Fuel Activity Factor (E12 Btu/yr)	Alternate Fuel Annual Emissions (TPY)	Annual Emissions (TPY)
			75.1% Biomass / 24.9% Fuel Oil				
Hazardous Air Pollutants							
Acetaldehyde	7.80E-04	4.428	1.73	--	1.468	--	1.73
Acetophenone	3.70E-06	4.428	0.008	--	1.468	--	0.008
Acrolein	6.50E-05	4.428	0.14	--	1.468	--	0.14
Antimony	UD	4.428	--	2.40E-07	1.468	0.0002	0.0002
Arsenic	5.65E-05	4.428	0.13	4.20E-08	1.468	3.1E-05	0.13
Benzene	1.30E-03	4.428	2.88	--	1.468	--	2.88
Beryllium	--	4.428	--	3.50E-07	1.468	2.6E-04	0.0003
Cadmium	8.40E-07	4.428	0.0019	1.10E-07	1.468	8.1E-05	0.0019
Carbon Disulfide	1.30E-04	4.428	0.29	--	1.468	--	0.29
Carbon Tetrachloride	6.00E-06	4.428	0.013	--	1.468	--	0.013
Chlorine	9.20E-04	4.428	2.04	--	1.468	--	2.04
Chloroform	4.70E-05	4.428	0.10	--	1.468	--	0.10
Chromium	5.55E-05	4.428	0.12	6.70E-07	1.468	0.0005	0.12
Chromium +6	1.11E-05	4.428	0.025	1.30E-07	1.468	9.5E-05	0.025
Cobalt	1.50E-07	4.428	3.3E-04	1.20E-05	1.468	0.009	0.009
Cumene	1.80E-05	4.428	0.040	--	1.468	--	0.040
Di - n - butyl Phthalate	5.80E-05	4.428	0.13	--	1.468	--	0.13
Ethyl Benzene	3.90E-06	4.428	0.009	--	1.468	--	0.009
Formaldehyde	1.30E-03	4.428	2.88	4.05E-04	1.468	0.30	3.18
n Hexane	5.50E-04	4.428	1.22	--	1.468	--	1.22
Hydrogen Chloride	5.60E-04	4.428	1.24	6.37E-04	1.468	0.47	1.71
Lead	2.70E-06	4.428	0.006	2.70E-06	1.468	0.0020	0.008
Manganese	9.50E-05	4.428	0.21	1.40E-07	1.468	1.0E-04	0.21
Mercury - Bagasse	6.30E-06	4.428	0.014	2.40E-06	1.468	0.0018	0.016
-Wood Waste	2.90E-07	4.428	0.0006	--	1.468	--	0.0006
Methanol	1.50E-03	4.428	3.32	--	1.468	--	3.32
Methyl Ethyl Ketone	1.20E-05	4.428	0.027	--	1.468	--	0.027
Methyl Isobutyl Ketone	8.60E-04	4.428	1.90	--	1.468	--	1.90
Methylene Chloride	1.50E-03	4.428	3.32	--	1.468	--	3.32
Napthalene	5.90E-04	4.428	1.31	--	1.468	--	1.31
Nickel	6.30E-06	4.428	0.014	1.70E-06	1.468	0.0012	0.015
Phenols	4.10E-05	4.428	0.09	--	1.468	--	0.09
Phosphorus	1.60E-06	4.428	0.0035	5.81E-05	1.468	0.043	0.046
POM (Polycyclic Org. Matter)	2.20E-07	4.428	0.0005	8.40E-06	1.468	0.006	0.007 a
Selenium	3.80E-06	4.428	0.008	3.80E-07	1.468	2.8E-04	0.009
Styrene	1.50E-05	4.428	0.033	--	1.468	--	0.033
2, 3, 7, 8 -TCDD (dioxin)	6.00E-12	4.428	1.3E-08	--	1.468	--	1.3E-08
Toluene	9.00E-05	4.428	0.20	--	1.468	--	0.20
1, 1, 1 Trichloroethane	1.70E-04	4.428	0.38	--	1.468	--	0.38
Trichloroethylene	7.60E-06	4.428	0.017	--	1.468	--	0.017
m & p Xylene	7.80E-06	4.428	0.017	--	1.468	--	0.017
o Xylene	2.60E-06	4.428	0.006	--	1.468	--	0.006
Total HAPs							24.691
112 (r) (non-HAPs)							
Ammonia	1.48E-02	4.428	32.77	1.48E-02	1.468	10.86	43.63
Bromine	4.59E-05	4.428	0.10	6.97E-07	1.468	0.0005	0.10
Flourine	--	4.428	--	6.30E-06	1.468	0.0046	0.0046
Other Air Toxics							
Barium	1.06E-04	4.428	0.23	6.69E-07	1.468	0.0005	0.23
Copper	7.24E-05	4.428	0.16	4.20E-05	1.468	0.031	0.19
Indium	1.27E-04	4.428	0.28	--	1.468	--	0.28
Molybdenum	2.24E-07	4.428	0.0005	4.88E-07	1.468	3.6E-04	0.0009
Silver	1.40E-06	4.428	0.0031	--	1.468	--	0.0031
Thallium	UD	4.428	--	--	1.468	--	--
Tin	3.65E-08	4.428	8.1E-05	3.30E-06	1.468	0.0024	0.0025
Uranium	--	4.428	--	--	1.468	--	--
Vanadium	--	4.428	--	--	1.468	--	--
Zinc	4.24E-04	4.428	0.94	6.69E-06	1.468	0.005	0.94
Zirconium	4.12E-07	4.428	0.0009	--	1.468	--	0.0009

Table 3. Maximum Annual Emissions of Hazardous/Toxic Air Pollutants per Boiler at Okeelanta Power Facility

Pollutant	Biomass Emission Factor (lb/MMBtu)	Biomass Activity Factor (E12 Btu/yr)	Biomass Annual Emissions (TPY)	Alternate Fuel Emission Factor (lb/MMBtu)	Alternate Fuel Activity Factor (E12 Btu/yr)	Alternate Fuel Annual Emissions (TPY)	Annual Emissions (TPY)
			74.9% Biomass / 24.9% Coal				
Hazardous Air Pollutants							
Acetaldehyde	7.80E-04	4.428	1.73	--	1.468	--	1.73
Acetophenone	3.70E-06	4.428	0.008	--	1.468	--	0.008
Acrolein	6.50E-05	4.428	0.14	--	1.468	--	0.14
Antimony	UD	4.428	--	3.49E-05	1.468	0.026	0.026 a
Arsenic	5.65E-05	4.428	0.13	5.40E-06	1.468	0.0040	0.13
Benzene	1.30E-03	4.428	2.88	--	1.468	--	2.88
Beryllium	--	4.428	--	3.50E-07	1.468	2.6E-04	2.6E-04
Cadmium	8.40E-07	4.428	0.0019	4.30E-07	1.468	3.2E-04	0.0022
Carbon Disulfide	1.30E-04	4.428	0.29	--	1.468	--	0.29
Carbon Tetrachloride	6.00E-06	4.428	0.013	--	1.468	--	0.013
Chlorine	9.20E-04	4.428	2.04	--	1.468	--	2.04
Chloroform	4.70E-05	4.428	0.10	--	1.468	--	0.10
Chromium	5.55E-05	4.428	0.12	1.66E-05	1.468	0.012	0.14
Chromium +6	1.11E-05	4.428	0.025	3.10E-06	1.468	0.0023	0.027
Cobalt	1.50E-07	4.428	3.3E-04	7.20E-05	1.468	0.053	0.053
Cumene	1.80E-05	4.428	0.040	--	1.468	--	0.040
Di - n - butyl Phthalate	5.80E-05	4.428	0.13	--	1.468	--	0.13
Ethyl Benzene	3.90E-06	4.428	0.009	--	1.468	--	0.009
Formaldehyde	1.30E-03	4.428	2.88	2.20E-04	1.468	0.16	3.04
n Hexane	5.50E-04	4.428	1.22	--	1.468	--	1.22
Hydrogen Chloride	5.60E-04	4.428	1.24	7.90E-02	1.468	57.99	59.23
Lead	2.70E-06	4.428	0.006	5.10E-06	1.468	--	0.006
Manganese	9.50E-05	4.428	0.21	3.10E-07	1.468	2.3E-04	0.21
Mercury - Bagasse	6.30E-06	4.428	0.014	8.40E-06	1.468	0.0062	0.020 a
-Wood Waste	2.90E-07	4.428	0.0006	--	1.468	--	0.0006
Methanol	1.50E-03	4.428	3.32	--	1.468	--	3.32
Methyl Ethyl Ketone	1.20E-05	4.428	0.027	--	1.468	--	0.027
Methyl Isobutyl Ketone	8.60E-04	4.428	1.90	--	1.468	--	1.90
Methylene Chloride	1.50E-03	4.428	3.32	--	1.468	--	3.32
Napthalene	5.90E-04	4.428	1.31	--	1.468	--	1.31
Nickel	6.30E-06	4.428	0.014	1.00E-05	1.468	0.0073	0.021
Phenols	4.10E-05	4.428	0.09	--	1.468	--	0.09
Phosphorus	1.60E-06	4.428	0.0035	8.60E-04	1.468	0.63	0.635 a
POM (Polycyclic Org. Matter)	2.20E-07	4.428	0.0005	--	1.468	--	0.0005
Selenium	3.80E-06	4.428	0.008	5.34E-05	1.468	0.039	0.048
Styrene	1.50E-05	4.428	0.033	--	1.468	--	0.033
2, 3, 7, 8 TCDD (dioxin)	6.00E-12	4.428	1.3E-08	--	1.468	--	1.3E-08
Toluene	9.00E-05	4.428	0.20	--	1.468	--	0.20
1, 1, 1 Trichloroethane	1.70E-04	4.428	0.38	--	1.468	--	0.38
Trichloroethylene	7.60E-06	4.428	0.017	--	1.468	--	0.017
m & p Xylene	7.80E-06	4.428	0.017	--	1.468	--	0.017
o Xylene	2.60E-06	4.428	0.006	--	1.468	--	0.006
Total HAPs							82.791
112 (r) (non-HAPs)							
Ammonia	1.48E-02	4.428	32.77	4.80E-02	1.468	35.23	68.0
Bromine	4.59E-05	4.428	0.10	7.90E-04	1.468	0.58	0.68 a
Flourine	--	4.428	--	6.30E-06	1.468	0.0046	0.00
Other Air Toxics							
Barium	1.06E-04	4.428	0.23	7.44E-05	1.468	0.055	0.29
Copper	7.24E-05	4.428	0.16	--	1.468	--	0.16
Indium	1.27E-04	4.428	0.28	--	1.468	--	0.28
Molybdenum	2.24E-07	4.428	0.0005	8.83E-06	1.468	0.0065	0.0070
Silver	1.40E-06	4.428	0.0031	--	1.468	--	0.0031
Thallium	UD	4.428	--	--	1.468	--	--
Tin	3.65E-08	4.428	8.1E-05	8.83E-06	1.468	0.0065	0.0066 a
Uranium	--	4.428	--	--	1.468	--	--
Vanadium	--	4.428	--	--	1.468	--	--
Zinc	4.24E-04	4.428	0.94	3.49E-04	1.468	0.26	1.19
Zirconium	4.12E-07	4.428	0.0009	--	1.468	--	0.0009

Table 3. Maximum Annual Emissions of Hazardous/Toxic Air Pollutants per Boiler at Okeelanta Power Facility

Pollutant	Biomass Emission Factor (lb/MMBtu)	Biomass Activity Factor (E12 Btu/yr)	Biomass Annual Emissions (TPY)	Alternate Fuel Emission Factor (lb/MMBtu)	Alternate Fuel Activity Factor (E12 Btu/yr)	Alternate Fuel Annual Emissions (TPY)	Annual Emissions (TPY)
			59.6% Biomass / 40.4% Tire-Derived Fuel				
Hazardous Air Pollutants							
Acetaldehyde	7.80E-04	3.733	1.46	--	2.530	--	1.46
Acetophenone	3.70E-06	3.733	0.007	--	2.530	--	0.007
Acrolein	6.50E-05	3.733	0.12	--	2.530	--	0.12
Antimony	UD	3.733	--	6.45E-09	2.530	8.2E-06	8.2E-06
Arsenic	5.65E-05	3.733	0.11	4.52E-05	2.530	0.057	0.16
Benzene	1.30E-03	3.733	2.43	--	2.530	--	2.426
Beryllium	--	3.733	--	--	2.530	--	--
Cadmium	8.40E-07	3.733	0.0016	3.87E-06	2.530	0.0049	0.0065 a
Carbon Disulfide	1.30E-04	3.733	0.24	--	2.530	--	0.24
Carbon Tetrachloride	6.00E-06	3.733	0.011	--	2.530	--	0.011
Chlorine	9.20E-04	3.733	1.72	--	2.530		1.72
Chloroform	4.70E-05	3.733	0.09	--	2.530	--	0.09
Chromium	5.55E-05	3.733	0.10	6.45E-06	2.530	0.0082	0.11
Chromium +6	1.11E-05	3.733	0.021	--	2.530	--	0.021
Cobalt	1.50E-07	3.733	2.8E-04	3.23E-04	2.530	0.41	0.41 a
Cumene	1.80E-05	3.733	0.034	--	2.530	--	0.034
Di - n - butyl Phthalate	5.80E-05	3.733	0.11	--	2.530	--	0.11
Ethyl Benzene	3.90E-06	3.733	0.007	--	2.530	--	0.007
Formaldehyde	1.30E-03	3.733	2.43	4.05E-04	2.530	0.51	2.94
n Hexane	5.50E-04	3.733	1.03	--	2.530	--	1.03
Hydrogen Chloride	5.60E-04	3.733	1.05	9.61E-02	2.530	121.6	122.6 a
Lead	2.70E-06	3.733	0.005	4.20E-05	2.530	5.3E-02	0.058 a
Manganese	9.50E-05	3.733	0.18	6.45E-04	2.530	0.82	0.99 a
Mercury - Bagasse	6.30E-06	3.733	0.012	6.50E-06	2.530	8.2E-03	0.020
-Wood Waste	2.90E-07	3.733	0.0005	--	2.530	--	0.0005
Methanol	1.50E-03	3.733	2.80	--	2.530	--	2.80
Methyl Ethyl Ketone	1.20E-05	3.733	0.022	--	2.530	--	0.022
Methyl Isobutyl Ketone	8.60E-04	3.733	1.61	--	2.530	--	1.61
Methylene Chloride	1.50E-03	3.733	2.80	--	2.530	--	2.80
Napthalene	5.90E-04	3.733	1.10	--	2.530	--	1.10
Nickel	6.30E-06	3.733	0.012	3.87E-05	2.530	0.049	0.061 a
Phenols	4.10E-05	3.733	0.08	--	2.530	--	0.08
Phosphorus	1.60E-06	3.733	0.0030	--	2.530	--	0.0030
POM (Polycyclic Org. Matter)	2.20E-07	3.733	0.0004	--	2.530	--	0.0004
Selenium	3.80E-06	3.733	0.007	6.77E-04	2.530	0.86	0.86 a
Styrene	1.50E-05	3.733	0.028	--	2.530	--	0.028
2, 3, 7, 8 TCDD (dioxin)	6.00E-12	3.733	1.1E-08	--	2.530	--	1.1E-08
Toluene	9.00E-05	3.733	0.17	--	2.530	--	0.17
1, 1, 1 Trichloroethane	1.70E-04	3.733	0.32	--	2.530	--	0.32
Trichloroethylene	7.60E-06	3.733	0.014	--	2.530	--	0.014
m & p Xylene	7.80E-06	3.733	0.015	--	2.530	--	0.015
o Xylene	2.60E-06	3.733	0.005	--	2.530	--	0.005
Total HAPs							144.457
112 (r) (non-HAPs)							
Ammonia	1.48E-02	3.733	27.62	4.80E-02	2.530	60.72	88.3 a
Bromine	4.59E-05	3.733	0.09	--	2.530	--	0.09
Flourine	--	3.733	--	6.50E-03	2.530	8.2225	8.22 a
Other Air Toxics							
Barium	1.06E-04	3.733	0.20	7.74E-06	2.530	0.0098	0.21
Copper	7.24E-05	3.733	0.14	6.15E-04	2.530	0.78	0.91 a
Indium	1.27E-04	3.733	0.24	--	2.530	--	0.24
Molybdenum	2.24E-07	3.733	0.0004	4.52E-05	2.530	0.057	0.058 a
Silver	1.40E-06	3.733	0.0026	--	2.530	--	0.0026
Thallium	UD	3.733	--	--	2.530	--	--
Tin	3.65E-08	3.733	6.8E-05	6.45E-09	2.530	8.16E-06	7.6E-05
Uramium	--	3.733	--	2.58E-08	2.530	3.26E-05	3.3E-05 a
Vanadium	--	3.733	--	6.45E-07	2.530	0.00082	8.2E-04 a
Zinc	4.24E-04	3.733	0.79	9.81E-03	2.530	12.41	13.20 a
Zirconium	4.12E-07	3.733	0.0008	--	2.530	--	0.0008

a Denotes maximum annual emissions for any fuel scenario.

Note: UD = undetectable levels in gas stream.

Table 4. Maximum Fuel Usage and Heat Input Rates per Boiler, Okeelanta Power Limited Partnership

Fuel	Heat Input	Heat Transfer Efficiency (%)	Heat Output	Fuel Firing Rate	
	Maximum Short-Term (per boiler)				
	(MMBtu/hr)		(MMBtu/hr)		
Biomass - Bagasse	715	68	486	168,235	lb/hr^a
- Wood Was	715	68	486	130,000	lb/hr^b
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
	Annual Average (per boiler)				
	(Btu/yr)		(Btu/yr)		
NORMAL OPERATIONS					
Biomass	6.263E+12	68	4.259E+12	736,871	TPY^a
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	6.263E+12		4.259E+12		
24.9% OIL FIRING					
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	5.896E+12		4.259E+12		
24.9% COAL FIRING					
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	5.896E+12		4.259E+12		
40.4% TIRE-DERIVED FUEL					
Biomass	3.733E+12	68	2.538E+12	339,364	TPY^b
No. 2 Fuel Oil	0	85	0	0	gal/yr
Coal	0	85	0	0	TPY
Tire-Derived Fuel	2.530E+12	68	1.720E+12	81,613	TPY
TOTAL	6.263E+12		4.259E+12		

^a Based on bagasse firing.
^b Based on wood waste firing.

Notes: Total heat output required = 4.259E+12 Btu/yr total both boilers.
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

Basis for annual heat input

Grinding season: 440,000 lb/hr steam; 658 MMBtu/hr/boiler; 140 crop days
Heat input= 4.4218E+12 Btu/yr

Non-grinding season: 273,150 lb/hr steam; 369 MMBtu/hr/boiler; 225 crop days; 95% capacity
Heat input= 3.7859E+12 Btu/yr

Totals: Heat input= 8.2077E+12 Btu/yr

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

Pollutant Detail Information:

1. Pollutant Emitted: **SO2**

2. Total Percent Efficiency of Control: %

3. Potential Emissions: **588** lb/hour **1,067.8** tons/year

4. Synthetically Limited? [**X**] Yes [ ] No

5. Range of Estimated Fugitive/Other Emissions:

   [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr

6. Emission Factor: **1.2 lb/MMBtu**

   Reference: **40 CFR 60 Subpart Da**

7. Emissions Method Code:

   [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters):

   1.2 lb/MMBtu x 490 MMBtu/hr = 588.0 lb/hr

9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

   1,154.3 TPY total for all three boilers.

Emissions Unit Information Section 14 **of** 18
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 1.2 lb/MMBtu	
4. Equivalent Allowable Emissions:	588 lb/hour 880.8 tons/year
5. Method of Compliance (limit to 60 characters): Limit coal burning to 24.9% for any single boiler.	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Basis for Allowable Emissions Code: NSPS. Based on coal firing.	

B.

1. Basis for Allowable Emissions Code: RULE	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.05 lb/MMBtu	
4. Equivalent Allowable Emissions:	22.5 lb/hour 36.7 tons/year
5. Method of Compliance (limit to 60 characters): Limit fuel oil burning to 24.9% for any single boiler.	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on No.2 fuel oil firing and BACT.	

Emissions Unit Information Section 14 **of** 18

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:	**OTHER**
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	**0.1** **lb/MMBtu**
4. Equivalent Allowable Emissions:	**71.5** lb/hour **93.6** tons/year
5. Method of Compliance (limit to 60 characters):	**Continuous SO2 monitor**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	**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.

1. Basis for Allowable Emissions Code:	**OTHER**
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	**1.2** **lb/MMBtu**
4. Equivalent Allowable Emissions:	**408** lb/hour **1,012** tons/year
5. Method of Compliance (limit to 60 characters):	**Continuous SO2 monitor.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	**Requested Allowable Emissions: 1.2 lb/MMBtu, 24-hr avg.; 0.8 lb/MMBtu, annual avg. Based on tire-derived fuel firing. Annual TPY: 81,613 TPY TDF x 15,500 Btu/lb x 0.8lb/MMBtu = 1,012.0 TPY**

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

Pollutant Detail Information:

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

Emissions Unit Information Section 14 of 18
Allowable Emissions (Pollutant identified on front page)

A.

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

B.

1. Basis for Allowable Emissions Code:	**ESCPSD**
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	**0.15** **lb/MMBtu**
4. Equivalent Allowable Emissions:	**67.5** lb/hour **110.1** tons/year
5. Method of Compliance (limit to 60 characters):	**Limit fuel oil burning to 24.9% for any single boiler.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	**Based on No.2 fuel oil firing**

Emissions Unit Information Section 14 **of** 18

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:	**ESCPSD**
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	**0.17** **lb/MMBtu**
4. Equivalent Allowable Emissions:	**83.3** lb/hour **124.8** tons/year
5. Method of Compliance (limit to 60 characters):	**Limit coal burning to 24.9% for any single boiler.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	**Based on coal firing**

B.

1. Basis for Allowable Emissions Code:	**ESCPSD**
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	**0.15** **lb/MMBtu**
4. Equivalent Allowable Emissions:	**51** lb/hour **189.8** tons/year
5. Method of Compliance (limit to 60 characters):	**Annual stack test using EPA Method 7 or 7E.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	**Based on tire-derived fuel firing. Limit TDF firing to 40.4% on a weight basis.**

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

Pollutant Detail Information:

1. Pollutant Emitted: CO
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **250.3** lb/hour **1,096.3** tons/year
4. Synthetically Limited? [x] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **0.35 lb/MMBtu** Reference: **Boiler Design**
7. Emissions Method Code: [x] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **0.35 lb/MMBtu x 715 MMBtu/hr = 250.3 lb/hr**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **2,012.5 TPY total for all boilers**

Emissions Unit Information Section 14 **of** 18

Allowable Emissions (Pollutant identified on front page)

A.

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

B.

1. Basis for Allowable Emissions Code:	**OTHER**
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	**0.2** **lb/MMBtu**
4. Equivalent Allowable Emissions:	**90** lb/hour **146.8** tons/year
5. Method of Compliance (limit to 60 characters):	**Limit fuel oil burning to 24.9% for any single boiler.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	**Based on No.2 fuel oil firing**

Emissions Unit Information Section 14 of 18
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:	**OTHER**
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	**0.2** **lb/MMBtu**
4. Equivalent Allowable Emissions:	**98** lb/hour **146.8** tons/year
5. Method of Compliance (limit to 60 characters):	**EPA Method 10 annually.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	**Based on coal firing. Limit coal burning to 24.9% each boiler.**

B.

1. Basis for Allowable Emissions Code:	**OTHER**
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	**0.35** **lb/MMBtu**
4. Equivalent Allowable Emissions:	**63** lb/hour **442.8** tons/year
5. Method of Compliance (limit to 60 characters):	**EPA Method 10 annually.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	**Based on tire-derived fuel firing. TDF firing limited to 40.4% for each boiler.**

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

Pollutant Detail Information:

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

Emissions Unit Information Section 14 of 18
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:	ESCNAA
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	0.03 lb/MMBtu
4. Equivalent Allowable Emissions:	14.7 lb/hour 22 tons/year
5. Method of Compliance (limit to 60 characters):	Limit coal burning to 24.9% for any single boiler
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	Based on coal firing

B.

1. Basis for Allowable Emissions Code:	ESCNAA
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	0.06 lb/MMBtu
4. Equivalent Allowable Emissions:	10.8 lb/hour 75.9 tons/year
5. Method of Compliance (limit to 60 characters):	EPA Method 25 or 25A annually
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	Based on tire-derived fuel firing. TDF firing limited to 40.4% for any single boiler(weight basis).

Allowable Emissions (Pollutant identified on front page)

A.

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

B.

1. Basis for Allowable Emissions Code:	**ESCNAA**
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	**0.03** **lb/MMBtu**
4. Equivalent Allowable Emissions:	**13.5** lb/hour **22** tons/year
5. Method of Compliance (limit to 60 characters):	**See Comment**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	**Based on No.2 fuel oil firing. Limit No.2 fuel oil burning to 24.9% for any single boiler.**

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

Pollutant Detail Information:

1. Pollutant Emitted: PB
2. Total Percent Efficiency of Control: %
3. Potential Emissions: 0.031 lb/hour 0.1 tons/year
4. Synthetically Limited? [X] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: 6.4 E-05 lb/MMBtu Reference: Permit
7. Emissions Method Code: [X] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): 6.4 E-05 lb/MMBtu x 490 MMBtu/hr = 0.031 lb/hr.
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): Max emissions due to coal firing. Facility emissions are 0.173 TPY total all boilers.

Emissions Unit Information Section 14 **of** 18

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 2.5 E-05 lb/MMBtu	
4. Equivalent Allowable Emissions: 0.018 lb/hour	0.052 tons/year
5. Method of Compliance (limit to 60 characters): Stack test using EPA Method 12 once every 5 years.	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Biomass Firing	

B.

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

Emissions Unit Information Section 14 of 18
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:	OTHER
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	6.4 E-05 lb/MMBtu
4. Equivalent Allowable Emissions:	0.031 lb/hour 0.047 tons/year
5. Method of Compliance (limit to 60 characters):	Stack test using EPA Method 12 once every 5 years.
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	Coal Firing

B.

1. Basis for Allowable Emissions Code:	OTHER
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	4.2 E-05 lb/MMBtu
4. Equivalent Allowable Emissions:	0.0143 lb/hour 0.053 tons/year
5. Method of Compliance (limit to 60 characters):	Stack test using EPA Method 12 once every 5 years.
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	TDF firing

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

Pollutant Detail Information:

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

Emissions Unit Information Section 14 of 18
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.01 lb/MMBtu**
4. Equivalent Allowable Emissions: **17.6** lb/hour **26.4** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 8 once every 5 years.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.01 lb/MMBtu**
4. Equivalent Allowable Emissions: **3.4** lb/hour **8.73** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 8 once every 5 years.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on tire-derived fuel firing.**

Emissions Unit Information Section 14 **of** 18

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.003 lb/MMBtu	
4. Equivalent Allowable Emissions:	2.2 lb/hour 1.9 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 8 once every 5 years.	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on biomass firing	

B.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.0015 lb/MMBtu	
4. Equivalent Allowable Emissions:	0.74 lb/hour 1.1 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 8 once every 5 years.	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on No.2 fuel oil firing.	

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

Pollutant Detail Information:

1. Pollutant Emitted: FL

2. Total Percent Efficiency of Control: %

3. Potential Emissions: 11.8 lb/hour 17.6 tons/year

4. Synthetically Limited? [X] Yes [ ] No

5. Range of Estimated Fugitive/Other Emissions:

[ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr

6. Emission Factor: 0.024 lb/MMBtu

Reference: Permit

7. Emissions Method Code:

[X] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters):

0.024 lb/MMBtu x 490 MMBtu/hr = 11.8 lb/hr

9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

Based on coal firing. Total emissions from all three boilers limited to 21.23 TPY.

Emissions Unit Information Section 14 **of** 18

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 6.3 E-06 lb/MMBtu	
4. Equivalent Allowable Emissions:	0.0031 lb/hour 0.0046 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): Based on No.2 fuel oil firing.	

B.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.024 lb/MMBtu	
4. Equivalent Allowable Emissions:	11.8 lb/hour 17.6 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 13A or 13B once every 5 years.	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on coal firing	

Emissions Unit Information Section 14 **of** 18

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 6.5 E-04 lb/MMBtu	
4. Equivalent Allowable Emissions:	0.22 lb/hour 0.82 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): Based on TDF firing.	

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

Emissions Unit Information Section 14 **of** 18

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **5.9 E-06 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.0029** lb/hour **0.0043** tons/year
5. Method of Compliance (limit to 60 characters): **Stack testing using EPA Method 104**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **3.5 E-07 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.0002** lb/hour **0.0002** tons/year
5. Method of Compliance (limit to 60 characters): **Stack testing using EPA Method 104**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing.**

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

June 17, 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:

Further to our completeness letter dated June 12 please address the attached comments submitted by the Palm Beach County Health Unit (PBCHU) with the information requested by the Department.

If you have any questions regarding this supplementary request, please call Jeff Koerner of the PBCHU at (407) 355-4549 or Syed Arif at (904) 488-1344.

Sincerely,

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

AAL/sa/t

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

P 339 251 110

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	Okeelanta Power
Post Office, State, & ZIP Code	S. Bay, Fl
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	6-17-96

PS Form **3800**, April 1995

NO GREEN CARD

P 339 251 111

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

Sent to	Dan Schaberg
Street & Number	Osceola Power, LP
Post Office, State, & ZIP Code	Pahokee, Fl
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	6-17-96

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, 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.

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

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:
Dan Schaberg, Gen. Mgr.
Osceola Power, LP
PO Box 606
Pahokee, Fl 33476

4a. Article Number
P 339 251 111

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

7. Date of Delivery
6-20-96

5. Signature (Addressee)

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

6. Signature (Agent)
Calvin Briscoe

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

Thank you for using Return Receipt Service.

HRS / PALM BEACH COUNTY PUBLIC HEALTH UNIT
DIVISION OF ENVIRONMENTAL HEALTH AND ENGINEERING
Air Pollution Control Section

FACSIMILE TRANSMITTAL COVER SHEET

DATE: June 13, 1996

FROM: Jeff Koerner, PE
Phone #: (407) 355-4549 [Sun Com: 273-4549]
FAX #: (407) 355-2442

TO: Syed Arif, Engineer IV
New Source Review Section
DEP - Bureau of Air Regulation
142600 Blair Stone Road
Tallahassee, FL 32399-2400
FAX #: (904) 922-6979

Subject: Comments on the Recent PSD Permit Modifications
Okeelanta Power Corporation and Osceola Power Corporation

Total Pages: 2 (including this cover sheet)

I apologize for not submitting these comments sooner. We did not receive the applications until May 31st and I have been out of the office for most of that time.

Palm Beach County Public Health Unit
Comments on New PSD Permit Modifications for Tire-Derived Fuel (TDF)
Osceola Power Corporation
Okeelanta Power Corporation

(1) Will the facility receive any whole tires? Does the facility plan to install any additional equipment that may be necessary to chip, screen, process, and handle whole tires or chipped tires?

(2) Recent inspections by the Health Unit indicate continued problems with the fuel handling systems. In particular, several sections of ductwork appear to have been damaged by the high velocities at which the fuels are being fed. Also, frequent jamming of the fuel handling system has occurred near the inlet to the boilers. Representatives of both facilities have proposed moving ID fans to alternate positions in an effort to fix this problem.

   (a) Have any modifications been performed on the fuel handling systems or ID Fans yet?

   (b) Should the fuel handling system be modified to adequately handle Tire Derived Fuel (TDF)?

(3) Are each of the following statements correct? If not, please provide additional supporting information.

   (a) The facilities are requesting exemption from 40 CFR 60, Subpart Cb for municipal waste combustors. (What is the justification (and rule citation) for the exemption?)

   (b) The facilities are subject to 40 CFR 60, Subpart Da for boilers.

   (c) The facilities are requesting exemption from 40 CFR 60, Subpart Ea for municipal waste combustors. The exemption is claimed based on 40 CFR 60.50a (d) for cofired combustors. The indication is that the cogeneration boilers will burn less than 30% municipal solid waste which is less than the 50% defined in 40 CFR 60.51a, over which the units would qualify as incinerators.

(4) Are the emissions of hydrochloric acid increasing from that of the original application? For example, in the Osceola Power application, it appears that the previous highest HCl levels would be 19.42 tons per year while burning about 5% coal. The estimated annual emissions of HCl while burning about 7% by weight TDF is 67 tons per year. Okeelanta Power's application indicates HCl emission over 100 tons per year. Are any control devices planned for the control of HCl emissions? Would such high HCl emissions have a detrimental effect on existing ductwork, fans, stacks, and control equipment?

(5) The factor used for estimating emissions of dioxins and furans was for wood waste boilers. A similar AP-42 emission factor for refuse-derived fuel burned in municipal waste combustors indicates several orders of magnitude higher. Shouldn't this more conservative estimate be used for the maximum (30%) municipal waste portion allowed by permit? Shouldn't these adjusted dioxin and furan emissions be compared with existing standards and modeling analyses?

(5) It is my understanding that the preliminary results for an initial stack test of sulfuric acid mist (SAM) indicates an exceedance of the emissions limiting standard. The applications indicate that SAM will be increased with the use of TDF replacing about 7% by weight of the biomass. Since the tests were conducted while burning *only* biomass, what reasonable assurance can be provided which would indicate compliance with the existing permit standard?

(6) Please provide more information on the sulfur capture in combination bark boilers. Figure 11 uses the phrase "ton wood residue per lb of sulfur in combined fuel feed". Does "ton wood residue" mean the *tons of wood burned in the boiler* or the *tons of ash generated from burning of wood in the boiler*?

Thank you for the opportunity to comment on this application.

Filename: TDF_PSD.FAX

R. File

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

June 12, 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 application for incorporating the use of Tire Derived Fuel (TDF) as a supplemental fuel at Okeelanta Power in Palm Beach County. Based on our initial review of the proposed project, 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. 40 CFR 60.8(a) requires that owners and operators of NSPS facilities conduct an initial performance test no later than 60 days after reaching maximum production or 180 days after initial startup, whichever comes first. Specific Condition No. 21 (a) of the above referenced permit also requires the same. The application states that first firing in the boilers occurred in October, 1995. Based on this, the initial performance test should have been conducted at the latest by April, 1996. If the test was conducted, please submit the results for the same. If the test was not conducted, please explain the reasons for the variance from 40 CFR 60.8(a) and Specific Condition No. 21(a) requirements.

2. 40 CFR 60, Subpart Ea defines Cofired combustor as a unit combusting 30 percent or less by weight municipal solid waste (MSW) with a non-MSW fuel as measured on a calendar quarter basis. What measures will be taken by the

facility to comply with the 30 percent by weight requirements, particularly noting that yard wastes and tires are considered MSW , and will be used as fuel for the boilers.

3. Please quantify increases in lead emissions, if any, due to TDF burning.

4. Please quantify ash content (bottom, siftings and fly) generated from TDF combustion, and provide the chemical analyses for each element. What measures will be taken for offsite disposal, and where will be the final destination.

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

Sincerely,

6/12

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

AAL/sa/t

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

Okeelanta -0990332-003-AC

INTEROFFICE MEMORANDUM

PSD-FI-196A

Date: 05-Jun-1996 08:07am EST
From: Kathy Anderson TAL
ANDERSON_K
Dept: Waste Management
Tel No: 904/922-6104
SUNCOM: 292-6104

TO: Richard Tedder TAL (TEDDER_R)
TO: Clair Fancy TAL (FANCY_C)

CC: Mary Jean Yon TAL (YON_MJ)
CC: Chris McGuire TAL (MCGUIRE_C)

Subject: Okleenta Sugar Mill

I received copies of the wood waste, fly, and bottom ash sampling results from the Okeelenta Sugar Mill Co-generation facility this past week. I reveiwed the data and was astounded at the high arsenic numbers in the fly ash !!!!!!!! Not only that but their fly ash flunks TCLP for chromium on ocassion.

Roughly speaking the bottom ash looks like Ridge ash .....Bottom ash - Arsenic ranging from 43 mg/kg to 89 mg/kg ..... Fly ash - Arsenic ranging from 330 mg/kg to 930mg/kg .....

I am preparing a spreadsheet summarizing there results so we can sit down and chat with Davaid Dee and the facility. I left a message for David Dee to call me, but he is out for a couple of days. What I would like to do is to chat to discuss several things such as :
1) Is the fly ash mixed with the bottom ash ? If so, how and where and what is the ratio of the fly ash to bottom ash?
2) What are they doing with the ash today ? If land applying then we need a risk assessment as soon as possible .....
3) Is the fly ash seperately from the bottom ash ? Where is it mixed ? Do we now have a problem with the hazardous waste people if the ash is collected and stored seperately ? Also if the ash is mixed then I need analysis on combined ash which they have not supplied me with .....

I still feel strongly about an ecological risk assessment for land application of these residuals. They were planning to land apply these all over the Everglades. There is cattle dip vat site, waste clean-up site, that Ligia and Zoe are involved in that is being cleaned up to 10 mg/kg because of the mallard duck migrating through the area when the human health risk clean up number was higher - 21 or 22 mg/kg. We need to internally discuss this issue with John Ruddell.

Kim - Copy Syed and Willard.

File this in latest Okeelanta request activefile that Syed is working on.

CL

OKEELANTA POWER LIMITED PARTNERSHIP

Flo-Sun, Inc.
U.S. Generating Company

May 13, 1996

Mr. Clair Fancy
Department of Environmental Protection
Bureau of Air Regulation
2600 Blair Stone Road, MS 5505
Twin Towers Office Building
Tallahassee, Florida 32399

Re: Okeelanta Power Limited Partnership
PSD-FL-196; AC50-219413
Application to Amend PSD Permit

Dear Mr. Fancy:

Please find enclosed four (4) copies of the "Application to Amend PSD Permit" for the Okeelanta Power Limited Partnership. This amendment primarily requests changes for the use of tire-derived fuel (TDF) as a supplemental fuel for the facility. Also attached is check # 1428 in the amount of $250.00 to cover the Department's processing fee.

If you have any questions please contact me at (407) 993-1003.

Sincerely,

James M. Meriwether
Environmental, Health
and Safety Representative

Enclosure: Four (4) copies of Permit Amendment Application

cc: D. Space - OkPLP
G. Cepero - OC (w/encl)
D. Schaberg - OsPLP
J. Ketterling - USOSC
M. Carney - USGen (w/encl)
D. Buff - KBN

CC: EPA
NPS
Syed - BAR
Cleve - BAR
SD - D. Knowles
SED - J. Kahn
PBCHU - J Stormer

OKEELANTA POWER LTD. PARTNERSHIP
6 MILES SOUTH OF SOUTH BAY
ON US HWY. 27
SOUTH BAY, FL 33493

1428

63-643/670
03668

May 10 19 96

PAY TO THE ORDER OF Florida Department of Environmental Protection $250.00

Two hundred fifty and 00/100---------- DOLLARS

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Ft. Lauderdale, Florida
24 Hour Information Service
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APPLICATION TO AMEND PSD PERMIT FOR OKEELANTA POWER LIMITED PARTNERSHIP

RECEIVED
MAY 14 1996
BUREAU OF
AIR REGULATION

Prepared For:

Okeelanta Power Limited Partnership
P.O. Box 8
South Bay, Florida 33493

Prepared By:

KBN Engineering and Applied Sciences, Inc.
6241 NW 23rd Street, Suite 500
Gainesville, Florida 32653-1500

May 1996
9651013Y/F1

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PART A

PERMIT APPLICATION FORMS

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

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	MAY 14, 1996
2. Permit Number:	0990332-003-AC
3. PSD Number (if applicable):	PSD-FL-196A
4. Siting Number (if applicable):	

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:

Dennis Space, General Manager

2. Owner/Authorized Representative or Responsible Official Mailing Address:

Organization/Firm: **Okeelanta Power Limited Partnership**
Street Address: **P.O. Box 8**
City: **South Bay** State: **FL** Zip Code: **33493**

3. Owner/Authorized Representative or Responsible Official Telephone Numbers:

Telephone: **(407) 993-1000** Fax: **(407) 996-6596**

4. Owner/Authorized Representative or Responsible Official Statement:

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.

Signature

5/7/96

Date

* 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.

Emissions Unit ID		Description of Emissions Unit	Permit Type
Unit #	Unit ID		
1R		Boiler No.1 fired by Biomass/No.2 oil/coal/TDF	ACM2
2R		Boiler No.2 fired by Biomass/No.2 oil/coal/TDF	ACM2
3R		Boiler No.3 fired by Biomass/No.2 oil/coal/TDF	ACM2
4		No.2 Fuel Oil Storage Tank	ACM2
5		Materials Handling	ACM2

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:

[X] 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

[ ] 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:

[x] Attached - Amount: $ $ 250.00 [ ] Not Applicable.

Construction/Modification Information

1. Description of Proposed Project or Alterations:

This application proposes revisions to the current construction permit for the 74.9 MW Biomass fired cogeneration facility. This application incorporates the use of Tire-Derived Fuel (TDF) as supplemental fuel.

2. Projected or Actual Date of Commencement of Construction :

1 Jun 1996

3. Projected Date of Completion of Construction :

31 Dec 1997

Professional Engineer Certification

1. Professional Engineer Name: **David A. Buff**
   Registration Number: **19011**

2. Professional Engineer Mailing Address:
   Organization/Firm: **KBN Eng and Applied Sciences**
   Street Address: **6241 NW 23rd Street, Suite 500**
   City: **Gainesville** State: **FL** Zip Code: **32653-1500**

3. Professional Engineer Telephone Numbers:
   Telephone: **(352) 336-5600** Fax: **(352) 336-6603**

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 REGISTERED ENGINEER CERTIFICATE NO. 39311 STATE OF FLORIDA

David A. Buff — 5/3/96

Signature (seal) — Date

*Attach any exception to certification statement.

Application Contact

1. Name and Title of Application Contact:
   James Meriwether, Env., Health & Safety Rep.

2. Application Contact Mailing Address:

   Organization/Firm: **Okeelanta Power Limited Partnership**
   Street Address: **P.O. Box 8**
   City: **South Bay** State: **FL** Zip Code: **33493**

3. Application Contact Telephone Numbers:

   Telephone: **(407) 993-1003** Fax: **(407) 996-6596**

Application Comment

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

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates:
   Zone: **17** East (km): **524.9** North (km): **2940.1**

2. Facility Latitude/Longitude:
   Latitude (DD/MM/SS): **26 / 35 / 0** Longitude: (DD/MM/SS): **80 / 45 / 0**

3. Governmental Facility Code:	4. Facility Status Code:	5. Facility Major Group SIC Code:	6. Facility SIC(s):
0	**C**	**49**	**4911**

7. Facility Comment (limit to 500 characters):

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.

Facility Contact

1. Name and Title of Facility Contact:
   James M. Meriwether, Env., Health & Safety Rep.

2. Facility Contact Mailing Address:
   Organization/Firm: **Okeelanta Power Limited Partnership**
   Street Address: **P.O. Box 8**
   City: **South Bay** State: **FL** Zip Code: **33493**

3. Facility Contact Telephone Numbers:
   Telephone: **(407) 993-1003** Fax: **(407) 996-6596**

Facility Regulatory Classifications

1. Small Business Stationary Source? [ ] Yes [x] No [ ] Unknown
2. Title V Source? [x] Yes [ ] No
3. Synthetic Non-Title V Source? [ ] Yes, [x] No
4. Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)? [x] Yes [ ] No
5. Synthetic Minor Source of Pollutants Other than HAPs? [ ] Yes [x] No
6. Major Source of Hazardous Air Pollutants (HAPs)? [x] Yes [ ] No
7. Synthetic Minor Source of HAPs? [ ] Yes [x] No
8. One or More Emissions Units Subject to NSPS? [x] Yes [ ] No
9. One or More Emissions Units Subject to NESHAP? [ ] Yes [x] No
10. Title V Source by EPA Designation? [ ] Yes [x] 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: Pollutant _____ of _____

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: Pollutant _____ of _____

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:
   [X] Attached, Document ID: PART B
   [ ] Not Applicable [ ] Waiver Requested

2. Facility Plot Plan:
   [X] Attached, Document ID: PART B
   [ ] Not Applicable [ ] Waiver Requested

3. Process Flow Diagram(s):
   [X] Attached, Document ID(s): PART B
   [ ] Not Applicable [ ] Waiver Requested

4. Precautions to Prevent Emissions of Unconfined Particulate Matter:
   [X] Attached, Document ID: PART B
   [ ] Not Applicable [ ] Waiver Requested

5. Fugitive Emissions Identification:
   [X] Attached, Document ID: PART B
   [ ] Not Applicable [ ] Waiver Requested

6. Supplemental Information for Construction Permit Application:
   [X] Attached, Document ID: PART B
   [ ] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

7. List of Proposed Exempt Activities:
   [ ] Attached, Document ID: _____
   [X] Not Applicable

8. List of Equipment/Activities Regulated under Title VI:
   [ ] Attached, Document ID: _____
   [ ] Equipment/Activities On site but Not Required to be Individually Listed
   [X] Not Applicable

9. Alternative Methods of Operation:
   [ ] Attached, Document ID: _____
   [X] Not Applicable

10. Alternative Modes of Operation (Emissions Trading):
    [ ] Attached, Document ID: _____
    [X] Not Applicable

11. Identification of Additional Applicable Requirements: [ ] Attached, Document ID: _____ [x] Not Applicable
12. Compliance Assurance Monitoring Plan: [ ] Attached, Document ID: _____ [x] Not Applicable
13. Risk Management Plan Verification: [ ] Plan Submitted to Implementing Agency - Verification Attached Document ID: _____ [ ] Plan to be Submitted to Implementing Agency by Required Date [x] Not Applicable
14. Compliance Report and Plan [ ] Attached, Document ID: _____ [x] Not Applicable
15. Compliance Statement (Hard-copy Required) [ ] Attached, Document ID: _____ [x] 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:

[X] 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:

[X] 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): **Boiler No.1 fired by Biomass/No.2 oil/coal/TDF**		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [X] Unknown		
3. Emissions Unit Status Code: C	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49
6. Emissions Unit Comment (limit to 500 characters): **74.9 MW gross generating capacity for entire facility.**		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters):

ESP - Electrostatic Precipitator

2. Control Device or Method Code: **10**

B.

1. Description (limit to 200 characters):

Selective Non-Catalytic reduction for NOx

2. Control Device or Method Code: **107**

C.

1. Description (limit to 200 characters):

Activated Carbon injection system.

2. Control Device or Method Code: **48**

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: Dwell Time: Incinerator Afterburner Temperature:	 °F seconds °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): **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**			

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)

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 1	
2. Emission Point Type Code: [x] 1 [ ] 2 [ ] 3 [ ] 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: [ ] D [ ] F [ ] H [ ] P [ ] R [x] V [ ] W	
6. Stack Height:	225 feet
7. Exit Diameter:	8 feet
8. Exit Temperature:	295 °F

9. Actual Volumetric Flow Rate:	**246,000** 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): **Stack parameters based on biomass firing.**	

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): **Electric Utility boiler - bagasse**	
2. Source Classification Code (SCC): **1-01-011-01**	
3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **84.118**	5. Maximum Annual Rate: **736,874**
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): **Maximum percent Sulfur: 0.025. Maximum Percent Ash: 0.83. Million Btu per SCC Unit: 8.5. Total biomass all three boilers = 1,352,941 TPY.**	

Segment Description and Rate: Segment 2 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Electric Utility Boiler - Wood Fired Boiler**
2. Source Classification Code (SCC): **1-01-009-03**
3. SCC Units: **Tons Burned**

4. Maximum Hourly Rate:	5. Maximum Annual Rate:
65	**569,400**

6. Estimated Annual Activity Factor:

7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
	3.2

9. Million Btu per SCC Unit: **11**
10. Segment Comment (limit to 200 characters): **Maximum Percent Sulfur: 0.025. Total biomass all three boilers = 1,352,941 TPY.**

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): **Electric Utility Boiler - Distillate Oil - Grades 1 and 2 oil**
2. Source Classification Code (SCC): **1-01-005-01**
3. SCC Units: **Thousand Gallons Burned**

4. Maximum Hourly Rate:	5. Maximum Annual Rate:
3.551	**7,745**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
0.05	

9. Million Btu per SCC Unit: **138**
10. Segment Comment (limit to 200 characters): **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.**

Segment Description and Rate: Segment 4 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Electric Utility boiler - Butiminous Coal - Spreader Stoker**	
2. Source Classification Code (SCC): **1-01-002-04**	
3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **20.417**	5. Maximum Annual Rate: **70,167**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: **0.7**	8. Maximum Percent Ash: **3.7**
9. Million Btu per SCC Unit: **24**	
10. Segment Comment (limit to 200 characters): **Total coal all three boilers = 70,167 TPY (16% coal burning on a heat input basis). The combined heat input for coal and oil <25% on a calendar quarter basis.**	

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): **Electric Utility Boiler - Solid Waste - Tire Derived Fuel**	
2. Source Classification Code (SCC): **1-01-012-01**	
3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **11**	5. Maximum Annual Rate: **81,613**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: **1.2**	8. Maximum Percent Ash: **5**
9. Million Btu per SCC Unit: **31**	
10. Segment Comment (limit to 200 characters): **Maximum hourly rate based on 340 MMBtu/hr TDF. Total TDF all three boilers = 81,613 TPY. This represents 9.1% TDF burning on a weight basis.**	

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: Pollutant 1 of 14

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

Emissions Unit Information Section 1 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

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

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: Pollutant 2 of 14

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

Emissions Unit Information Section 1 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.03 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**21.5** lb/hour **94.17** 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): **Basis for Allowable Emissions Code: NSPS. Maximum lb/hr based on biomass firing.**	

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

Emissions Unit Information Section 1 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.1 lb/MMBtu**
4. Equivalent Allowable Emissions: **71.5** lb/hour **62.6** tons/year
5. Method of Compliance (limit to 60 characters): **Continuous SO2 monitor**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **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. Annual TPY: 715 MMBtu/hr x 0.02 x 8,760 hr/yr = 62.6 TPY**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **1.2 lb/MMBtu**
4. Equivalent Allowable Emissions: **408** lb/hour **1,012** tons/year
5. Method of Compliance (limit to 60 characters): **Continuous SO2 monitor.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Requested Allowable Emissions: 1.2 lb/MMBtu, 24-hr avg.; 0.8 lb/MMBtu, annual avg. Based on tire-derived fuel firing. Annual TPY: 81,613 TPY TDF x 15,500 Btu/lb x 0.8lb/MMBtu = 1,012.0 TPY**

Emissions Unit Information Section 1 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **1.2** **lb/MMBtu**
4. Equivalent Allowable Emissions: **588** lb/hour **641.3** tons/year
5. Method of Compliance (limit to 60 characters): **Limit coal burning to 24.9% for any single boiler.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Basis for Allowable Emissions Code: NSPS. Based on coal firing.**

B.

1. Basis for Allowable Emissions Code: **RULE**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.05** **lb/MMBtu**
4. Equivalent Allowable Emissions: **22.5** lb/hour **24.5** tons/year
5. Method of Compliance (limit to 60 characters): **Limit fuel oil burning to 24.9% for any single boiler.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing and BACT.**

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

Pollutant Detail Information: Pollutant 4 of 14

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

Emissions Unit Information Section 1 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

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

B.

1. Basis for Allowable Emissions Code: **ESCPSD** ~
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.15 lb/MMBtu**
4. Equivalent Allowable Emissions: **67.5** lb/hour **73.6** tons/year
5. Method of Compliance (limit to 60 characters): **Limit fuel oil burning to 24.9% for any single boiler.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing**

Emissions Unit Information Section 1 of 5
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **ESCPSD**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.17 lb/MMBtu**
4. Equivalent Allowable Emissions: **83.3** lb/hour **90.8** tons/year
5. Method of Compliance (limit to 60 characters): **Limit coal burning to 24.9% for any single boiler.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing**

B.

1. Basis for Allowable Emissions Code: **ESCPSD**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.15 lb/MMBtu**
4. Equivalent Allowable Emissions: **51** lb/hour **223.4** tons/year
5. Method of Compliance (limit to 60 characters): **Annual stack test using EPA Method 7 or 7E.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on tire-derived fuel firing. Limit TDF firing to 25% on a weight basis.**

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

Pollutant Detail Information: Pollutant 5 of 14

1. Pollutant Emitted: CO
2. Total Percent Efficiency of Control: %
3. Potential Emissions: 250.3 lb/hour 1,096.3 tons/year
4. Synthetically Limited? [x] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: 0.35 lb/MMBtu Reference: Boiler Design
7. Emissions Method Code: [ ] 0 [ ] 1 [x] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): 0.35 lb/MMBtu x 715 MMBtu/hr = 250.3 lb/hr
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): 2,012.5 TPY total for all boilers

Emissions Unit Information Section 1 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.2** **lb/MMBtu**
4. Equivalent Allowable Emissions: **98** lb/hour **106.9** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 10 annually.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing. Limit coal burning to 24.9% each boiler.**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.35** **lb/MMBtu**
4. Equivalent Allowable Emissions: **63** lb/hour **275.9** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 10 annually.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on tire-derived fuel firing. TDF firing limited to 25% for each boiler.**

Emissions Unit Information Section 1 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

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

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.2 lb/MMBtu**
4. Equivalent Allowable Emissions: **90** lb/hour **98.2** tons/year
5. Method of Compliance (limit to 60 characters): **Limit fuel oil burning to 24.9% for any single boiler.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing**

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

Pollutant Detail Information: Pollutant 6 of 14

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

Emissions Unit Information Section 1 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: ESCNAA	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.03 lb/MMBtu	
4. Equivalent Allowable Emissions:	14.7 lb/hour 16 tons/year
5. Method of Compliance (limit to 60 characters): Limit coal burning to 24.9% for any single boiler	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on coal firing	

B.

1. Basis for Allowable Emissions Code: ESCNAA	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.06 lb/MMBtu	
4. Equivalent Allowable Emissions:	10.8 lb/hour 47.3 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 25 or 25A annually	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on tire-derived fuel firing. TDF firing limited to 25% for any single boiler(weight basis).	

Emissions Unit Information Section 1 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

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

B.

1. Basis for Allowable Emissions Code: **ESCNAA**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.03 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**13.5** lb/hour **14.7** tons/year
5. Method of Compliance (limit to 60 characters): **See Comment**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing. Limit No.2 fuel oil burning to 24.9% for any single boiler.**	

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

Pollutant Detail Information: Pollutant 7 of 14

1. Pollutant Emitted: **PB**
2. Total Percent Efficiency of Control: **99** %
3. Potential Emissions: **0.031** lb/hour **0.173** tons/year
4. Synthetically Limited? [x] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **6.4 E-05 lb/MMBtu** Reference: **See Part B**
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [x] 5
8. Calculation of Emissions (limit to 600 characters): **6.4 E-05 lb/MMBtu x 490 MMBtu/hr = 0.031 lb/hr.**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **Max emissions due to coal firing. Facility emissions are 0.173 TPY total all boilers.**

Emissions Unit Information Section 1 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **2.5 E-05 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.018** lb/hour **0.079** tons/year
5. Method of Compliance (limit to 60 characters): **Stack test using EPA Method 12 once every 5 years.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Biomass Firing**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **8.9 E-07 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.0004** lb/hour **0.0019** tons/year
5. Method of Compliance (limit to 60 characters): **Stack test using EPA Method 12 once every 5 years.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **No.2 fuel oil firing**

Emissions Unit Information Section 1 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: OTHER
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 6.4 E-05 lb/MMBtu
4. Equivalent Allowable Emissions: 0.031 lb/hour 0.136 tons/year
5. Method of Compliance (limit to 60 characters): Stack test using EPA Method 12 once every 5 years.
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Coal Firing

B.

1. Basis for Allowable Emissions Code: OTHER
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 4.2 E-05 lb/MMBtu
4. Equivalent Allowable Emissions: 0.0143 lb/hour 0.063 tons/year
5. Method of Compliance (limit to 60 characters): Stack test using EPA Method 12 once every 5 years.
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): TDF firing

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

Pollutant Detail Information: Pollutant 8 of 14

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

Emissions Unit Information Section 1 of 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.01 lb/MMBtu**
4. Equivalent Allowable Emissions: **17.6** lb/hour **19.2** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 8 once every 5 years.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.01 lb/MMBtu**
4. Equivalent Allowable Emissions: **3.4** lb/hour **14.9** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 8 once every 5 years.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on tire-derived fuel firing.**

Emissions Unit Information Section 1 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.003 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**2.2** lb/hour **9.6** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 8 once every 5 years.**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on biomass firing**	

B.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.0015 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**0.74** lb/hour **3.2** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 8 once every 5 years.**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing.**	

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

Pollutant Detail Information: Pollutant 9 of 14

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

Emissions Unit Information Section 1 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **6.3 E-06 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.0031** lb/hour **0.0034** 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): **Based on No.2 fuel oil firing.**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.024 lb/MMBtu**
4. Equivalent Allowable Emissions: **11.8** lb/hour **21.23** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 13A or 13B once every 5 years.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing**

Emissions Unit Information Section 1 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: OTHER
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 6.5 E-04 lb/MMBtu
4. Equivalent Allowable Emissions: 0.22 lb/hour 0.96 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): Based on TDF firing.

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: Pollutant 10 of 14

1. Pollutant Emitted: **H114**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **0.0046** lb/hour **0.03** tons/year
4. Synthetically Limited? [x] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **See Part B** Reference: **See Part B**
7. Emissions Method Code: [x] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **Annual TPY limited by permit condition.**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **Total emissions all three boilers cannot exceed 0.030 TPY.**

Emissions Unit Information Section 1 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.03 TPY**	
4. Equivalent Allowable Emissions: **0.0046** lb/hour	**0.03** tons/year
5. Method of Compliance (limit to 60 characters): **Stack testing using EPA Method 101a**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Fuel management plan to be submitted after stack testing and determination of actual mercury emission factors.**	

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: Pollutant 11 of 14

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

Emissions Unit Information Section 1 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **5.9 E-06 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.0029** lb/hour **0.0052** tons/year
5. Method of Compliance (limit to 60 characters): **Stack testing using EPA Method 104**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **3.5 E-07 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.0002** lb/hour **0.0002** tons/year
5. Method of Compliance (limit to 60 characters): **Stack testing using EPA Method 104**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing.**

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitations: Visible Emissions Limitation 1 of 1

1.	Visible Emissions Subtype: VE20
2.	Basis for Allowable Opacity: [X] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: 20 % Exceptional Conditions: 27 % Maximum Period of Excess Opacity Allowed: 6 min/hour
4.	Method of Compliance: EPA Method 9
5.	Visible Emissions Comment (limit to 200 characters):

Visible Emissions Limitations: Visible Emissions Limitation _____ of _____

1.	Visible Emissions Subtype:
2.	Basis for Allowable Opacity: [ ] Rule [ ] 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: VE	2. Pollutant(s):
2. CMS Requirement: [X] Rule [ ] Other	
3. Monitor Information: Monitor Manufacturer: Durag Model Number: D-R281AV Serial Number: 31019	
4. Installation Date: 01 Oct 1995	
5. Performance Specification Test Date:	
6. Continuous Monitor Comment (limit to 200 characters): 40 CFR 60, Subpart Da	

Continuous Monitoring System Continuous Monitor 2 of 5

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

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 3 of 5

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

Continuous Monitoring System Continuous Monitor 4 of 5

1. Parameter Code: CO	2. Pollutant(s):
2. CMS Requirement: [ ] Rule [X] Other	
3. Monitor Information: Monitor Manufacturer: Thermo Environmental Instuments Model Number: 48 Serial Number: 48-45334-273	
4. Installation Date: 01 Oct 1995	
5. Performance Specification Test Date:	
6. 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: O2	2. Pollutant(s):
2. CMS Requirement: [X] Rule [ ] Other	
3. Monitor Information: Monitor Manufacturer: Yokogawa Model Number: ZA8C Serial Number: JJ113MA345	
4. Installation Date: 01 Oct 1995	
5. Performance Specification Test Date:	
6. Continuous Monitor Comment (limit to 200 characters): 40 CFR 60, Subpart Da	

Continuous Monitoring System Continuous Monitor _____ of _____

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

   [X] 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.

[X] 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	[X] C	[ ] E	[ ] Unknown
	SO_2	[X] C	[ ] E	[ ] Unknown
	NO_2	[X] C	[ ] E	[ ] Unknown
4.	Baseline Emissions:			
	PM	0 lb/hour	0	tons/year
	SO_2	0 lb/hour	0	tons/year
	NO_2		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	
	[X] Attached, Document ID: PART B	
	[ ] Not Applicable	[ ] Waiver Requested
2.	Fuel Analysis or Specification	
	[X] Attached, Document ID: PART B	
	[ ] Not Applicable	[ ] Waiver Requested
3.	Detailed Description of Control Equipment	
	[X] Attached, Document ID: PART B	
	[ ] Not Applicable	[ ] Waiver Requested
4.	Description of Stack Sampling Facilities	
	[ ] Attached, Document ID: _____	
	[X] Not Applicable	[ ] Waiver Requested
5.	Compliance Test Report	
	[ ] Attached, Document ID: _____	[X] Not Applicable
	[ ] Previously Submitted, Date: _____	
6.	Procedures for Startup and Shutdown	
	[ ] Attached, Document ID: _____	[X] Not Applicable
7.	Operation and Maintenance Plan	
	[ ] Attached, Document ID: _____	[X] Not Applicable
8.	Supplemental Information for Construction Permit Application	
	[X] Attached, Document ID: PART B	[ ] Not Applicable
9.	Other Information Required by Rule or Statute	
	[X] Attached, Document ID: PART B	[ ] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operation

[ ] Attached, Document ID: _____ [X] Not Applicable

11. Alternative Modes of Operation (Emissions Trading)

[ ] Attached, Document ID: _____ [X] Not Applicable

12. Identification of Additional Applicable Requirements

[ ] Attached, Document ID: _____ [X] Not Applicable

13. Compliance Assurance Monitoring Plan

[ ] Attached, Document ID: _____ [X] Not Applicable

14. Acid Rain Permit Application (Hard Copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID: _____

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID: _____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID: _____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID: _____

[X] 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:

[X] 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:

[X] 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): **Boiler No.2 fired by Biomass/No.2 oil/coal/TDF**		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [X] Unknown		
3. Emissions Unit Status Code: C	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49
6. Emissions Unit Comment (limit to 500 characters): **74.9 MW gross generating capacity for entire facility.**		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters):

ESP - Electrostatic Precipitator

2. Control Device or Method Code: **10**

B.

1. Description (limit to 200 characters):

Selective Non-Catalytic Reduction for NOx

2. Control Device or Method Code: **107**

C.

1. Description (limit to 200 characters):

Activated Carbon injection system.

2. Control Device or Method Code: **48**

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: Dwell Time: Incinerator Afterburner Temperature:	°F seconds °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): **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**			

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)

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 2	
2. Emission Point Type Code: [x]1 [ ]2 [ ]3 [ ]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: [ ]D [ ]F [ ]H [ ]P [ ]R [x]V [ ]W	
6. Stack Height:	225 feet
7. Exit Diameter:	8 feet
8. Exit Temperature:	295 °F

9. Actual Volumetric Flow Rate:	**246,000** 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): **Stack parameters based on biomass firing.**	

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):

   Electric Utility boiler - bagasse

2. Source Classification Code (SCC):

   1-01-011-01

3. SCC Units:

   Tons Burned

4. Maximum Hourly Rate:	5. Maximum Annual Rate:
84.118	**736,874**

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):

    Maximum percent Sulfur: 0.025. Maximum Percent Ash: 0.83. Million Btu per SCC Unit: 8.5. Total biomass all three boilers = 1,352,941 TPY.

Segment Description and Rate: Segment 2 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Electric Utility Boiler - Wood Fired Boiler**	
2. Source Classification Code (SCC): **1-01-009-03**	
3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **65**	5. Maximum Annual Rate: **569,400**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash: **3.2**
9. Million Btu per SCC Unit: **11**	
10. Segment Comment (limit to 200 characters): **Maximum Percent Sulfur: 0.025. Total biomass all three boilers = 1,352,941 TPY.**	

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):

   Electric Utility Boiler - Distillate Oil - Grades 1 and 2 oil

2. Source Classification Code (SCC):

   1-01-005-01

3. SCC Units:

   Thousand Gallons Burned

4. Maximum Hourly Rate:	5. Maximum Annual Rate:
3.551	**7,745**

6. Estimated Annual Activity Factor:

7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
0.05	

9. Million Btu per SCC Unit:

   138

10. Segment Comment (limit to 200 characters):

    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.

Segment Description and Rate: Segment 4 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Electric Utility boiler - Butiminous Coal - Spreader Stoker**	
2. Source Classification Code (SCC): **1-01-002-04**	
3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **20.417**	5. Maximum Annual Rate: **70,167**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: **0.7**	8. Maximum Percent Ash: **3.7**
9. Million Btu per SCC Unit: **24**	
10. Segment Comment (limit to 200 characters): **Total coal all three boilers = 70,167 TPY (16% coal burning on a heat input basis). The combined heat input for coal and oil <25% on a calendar quarter basis.**	

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): **Electric Utility Boiler - Solid Waste - Tire Derived Fuel**	
2. Source Classification Code (SCC): **1-01-012-01**	
3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **11**	5. Maximum Annual Rate: **81,613**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: **1.2**	8. Maximum Percent Ash: **5**
9. Million Btu per SCC Unit: **31**	
10. Segment Comment (limit to 200 characters): **Maximum hourly rate based on 340 MMBtu/hr TDF. Total TDF all three boilers = 81,613 TPY. This represents 9.1% TDF burning on a weight basis.**	

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	48		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: Pollutant 1 of 14

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

Emissions Unit Information Section 2 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

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

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: Pollutant 2 of 14

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

Emissions Unit Information Section 2 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.03 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**21.5** lb/hour **94.17** 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): **Basis for Allowable Emissions Code: NSPS. Maximum lb/hr based on biomass firing.**	

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: Pollutant 3 of 14

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

Emissions Unit Information Section 2 of 5
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.1 lb/MMBtu**
4. Equivalent Allowable Emissions: **71.5** lb/hour **62.6** tons/year
5. Method of Compliance (limit to 60 characters): **Continuous SO2 monitor**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **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. Annual TPY: 715 MMBtu/hr x 0.02 x 8,760 hr/yr = 62.6 TPY**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **1.2 lb/MMBtu**
4. Equivalent Allowable Emissions: **408** lb/hour **1,012** tons/year
5. Method of Compliance (limit to 60 characters): **Continuous SO2 monitor.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Requested Allowable Emissions: 1.2 lb/MMBtu, 24-hr avg.; 0.8 lb/MMBtu, annual avg. Based on tire-derived fuel firing. Annual TPY: 81,613 TPY TDF x 15,500 Btu/lb x 0.8 lb/MMBtu = 1,012.0 TPY**

Emissions Unit Information Section 2 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 1.2 lb/MMBtu	
4. Equivalent Allowable Emissions:	588 lb/hour 641.3 tons/year
5. Method of Compliance (limit to 60 characters): Limit coal burning to 24.9% for any single boiler.	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Basis for Allowable Emissions Code: NSPS. Based on coal firing.	

B.

1. Basis for Allowable Emissions Code: RULE	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.05 lb/MMBtu	
4. Equivalent Allowable Emissions:	22.5 lb/hour 24.5 tons/year
5. Method of Compliance (limit to 60 characters): Limit fuel oil burning to 24.9% for any single boiler.	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on No.2 fuel oil firing and BACT.	

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

Pollutant Detail Information: Pollutant 4 of 14

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

Emissions Unit Information Section 2 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

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

B.

1. Basis for Allowable Emissions Code: **ESCPSD**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.15 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**67.5** lb/hour **73.6** tons/year
5. Method of Compliance (limit to 60 characters): **Limit fuel oil burning to 24.9% for any single boiler.**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing**	

Emissions Unit Information Section 2 of 5
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **ESCPSD**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.17 lb/MMBtu**
4. Equivalent Allowable Emissions: **83.3** lb/hour **90.8** tons/year
5. Method of Compliance (limit to 60 characters): **Limit coal burning to 24.9% for any single boiler.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing**

B.

1. Basis for Allowable Emissions Code: **ESCPSD**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.15 lb/MMBtu**
4. Equivalent Allowable Emissions: **51** lb/hour **223.4** tons/year
5. Method of Compliance (limit to 60 characters): **Annual stack test using EPA Method 7 or 7E.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on tire-derived fuel firing. Limit TDF firing to 25% on a weight basis.**

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

Pollutant Detail Information: Pollutant 5 of 14

1. Pollutant Emitted: CO
2. Total Percent Efficiency of Control: %
3. Potential Emissions: 250.3 lb/hour 1,096.3 tons/year
4. Synthetically Limited? [x] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: 0.35 lb/MMBtu Reference: Boiler Design
7. Emissions Method Code: [ ] 0 [ ] 1 [x] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): 0.35 lb/MMBtu x 715 MMBtu/hr = 250.3 lb/hr
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): 2,012.5 TPY total for all boilers

Emissions Unit Information Section 2 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.2 lb/MMBtu	
4. Equivalent Allowable Emissions:	98 lb/hour 106.9 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 10 annually.	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on coal firing. Limit coal burning to 24.9% each boiler.	

B.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.35 lb/MMBtu	
4. Equivalent Allowable Emissions:	63 lb/hour 275.9 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 10 annually.	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on tire-derived fuel firing. TDF firing limited to 25% for each boiler.	

Emissions Unit Information Section 2 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

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

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.2** **lb/MMBtu**
4. Equivalent Allowable Emissions: **90** lb/hour **98.2** tons/year
5. Method of Compliance (limit to 60 characters): **Limit fuel oil burning to 24.9% for any single boiler.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing**

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

Pollutant Detail Information: Pollutant 6 of 14

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

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code:	ESCNAA
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	0.03 lb/MMBtu
4. Equivalent Allowable Emissions:	14.7 lb/hour 16 tons/year
5. Method of Compliance (limit to 60 characters):	Limit coal burning to 24.9% for any single boiler
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	Based on coal firing

B.

1. Basis for Allowable Emissions Code:	ESCNAA
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units:	0.06 lb/MMBtu
4. Equivalent Allowable Emissions:	10.8 lb/hour 47.3 tons/year
5. Method of Compliance (limit to 60 characters):	EPA Method 25 or 25A annually
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):	Based on tire-derived fuel firing. TDF firing limited to 25% for any single boiler(weight basis).

Emissions Unit Information Section 2 of 5

Allowable Emissions (Pollutant identified on front page)

A.

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

B.

1. Basis for Allowable Emissions Code: **ESCNAA**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.03 lb/MMBtu**
4. Equivalent Allowable Emissions: **13.5** lb/hour **14.7** tons/year
5. Method of Compliance (limit to 60 characters): **See Comment**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing. Limit No.2 fuel oil burning to 24.9% entire facility and for any single boiler.**

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

Pollutant Detail Information: Pollutant 7 of 14

1. Pollutant Emitted: **PB**
2. Total Percent Efficiency of Control: **99** %
3. Potential Emissions: **0.031** lb/hour **0.173** tons/year
4. Synthetically Limited? [**X**] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **6.4 E-05 lb/MMBtu** Reference: **See Part B**
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [**X**] 5
8. Calculation of Emissions (limit to 600 characters): **6.4 E-05 lb/MMBtu x 490 MMBtu/hr = 0.031 lb/hr.**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **Max emissions due to coal firing. Facility emissions are 0.173 TPY total all boilers.**

Emissions Unit Information Section 2 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **2.5 E-05 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**0.018** lb/hour **0.079** tons/year
5. Method of Compliance (limit to 60 characters): **Stack test using EPA Method 12 once every 5 years.**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Biomass Firing**	

B.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **8.9 E-07 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**0.0004** lb/hour **0.0019** tons/year
5. Method of Compliance (limit to 60 characters): **Stack test using EPA Method 12 once every 5 years.**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **No.2 fuel oil firing**	

Emissions Unit Information Section 2 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **6.4 E-05 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.031** lb/hour **0.136** tons/year
5. Method of Compliance (limit to 60 characters): **Stack test using EPA Method 12 once every 5 years.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Coal Firing**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **4.2 E-05 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.0143** lb/hour **0.063** tons/year
5. Method of Compliance (limit to 60 characters): **Stack test using EPA Method 12 once every 5 years.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **TDF firing**

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

Pollutant Detail Information: Pollutant 8 of 14

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

Emissions Unit Information Section 2 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.01 lb/MMBtu	
4. Equivalent Allowable Emissions:	17.6 lb/hour 19.2 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 8 once every 5 years.	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on coal firing	

B.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.01 lb/MMBtu	
4. Equivalent Allowable Emissions:	3.4 lb/hour 14.9 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 8 once every 5 years.	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on tire-derived fuel firing.	

Emissions Unit Information Section 2 of 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.003 lb/MMBtu	
4. Equivalent Allowable Emissions:	2.2 lb/hour 9.6 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 8 once every 5 years.	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on biomass firing	

B.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.0015 lb/MMBtu	
4. Equivalent Allowable Emissions:	0.74 lb/hour 3.2 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 8 once every 5 years.	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on No.2 fuel oil firing.	

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

Pollutant Detail Information: Pollutant 9 of 14

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

Emissions Unit Information Section 2 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 6.3 E-06 lb/MMBtu	
4. Equivalent Allowable Emissions:	0.0031 lb/hour 0.0034 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): Based on No.2 fuel oil firing	

B.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.024 lb/MMBtu	
4. Equivalent Allowable Emissions:	11.8 lb/hour 21.23 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 13A or 13B once every 5 years.	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on coal firing	

Emissions Unit Information Section 2 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **6.5 E-04 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**0.22** lb/hour **0.96** 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): **Based on TDF firing.**	

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: Pollutant 10 of 14

1. Pollutant Emitted: **H114**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **0.0046** lb/hour **0.03** tons/year
4. Synthetically Limited? [**X**] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **See Part B** Reference: **See Part B**
7. Emissions Method Code: [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **Annual TPY limited by permit condition.**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **Total emissions all three boilers cannot exceed 0.030 TPY.**

Emissions Unit Information Section 2 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.03 TPY**	
4. Equivalent Allowable Emissions:	**0.0046** lb/hour **0.03** tons/year
5. Method of Compliance (limit to 60 characters): **Stack testing using EPA Method 101a**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Fuel management plan to be submitted after stack testing and determination of actual mercury emission factors.**	

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: Pollutant 11 of 14

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

Emissions Unit Information Section 2 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **5.9 E-06 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.0029** lb/hour **0.0052** tons/year
5. Method of Compliance (limit to 60 characters): **Stack testing using EPA Method 104**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **3.5 E-07 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.0002** lb/hour **0.0002** tons/year
5. Method of Compliance (limit to 60 characters): **Stack testing using EPA Method 104**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing.**

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitations: Visible Emissions Limitation 1 of 1

1.	Visible Emissions Subtype: VE20
2.	Basis for Allowable Opacity: [X] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: 20 % Exceptional Conditions: 27 % Maximum Period of Excess Opacity Allowed: 6 min/hour
4.	Method of Compliance: EPA Method 9
5.	Visible Emissions Comment (limit to 200 characters):

Visible Emissions Limitations: Visible Emissions Limitation _____ of _____

1.	Visible Emissions Subtype:
2.	Basis for Allowable Opacity: [ ] Rule [ ] 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: VE	2. Pollutant(s):
2. CMS Requirement: [X] Rule [ ] Other	
3. Monitor Information: Monitor Manufacturer: Durag Model Number: D-R281AV Serial Number: 31015	
4. Installation Date: 01 Oct 1995	
5. Performance Specification Test Date:	
6. Continuous Monitor Comment (limit to 200 characters): 40 CFR 60, Subpart Da	

Continuous Monitoring System Continuous Monitor 2 of 5

1. Parameter Code: NOx	2. Pollutant(s):
2. CMS Requirement: [X] Rule [ ] Other	
3. Monitor Information: Monitor Manufacturer: Thermo Environmental Instruments Model Number: 42D Serial Number: 42D-51082-292	
4. Installation Date: 01 Oct 1995	
5. Performance Specification Test Date:	
6. Continuous Monitor Comment (limit to 200 characters): 40 CFR 60, Subpart Da	

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 3 of 5

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

Continuous Monitoring System Continuous Monitor 4 of 5

1. Parameter Code: CO	2. Pollutant(s):
2. CMS Requirement: [ ] Rule [X] Other	
3. Monitor Information: Monitor Manufacturer: Thermo Environmental Insturments Model Number: 48 Serial Number: 48-45334-273	
4. Installation Date: 01 Oct 1995	
5. Performance Specification Test Date:	
6. 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: O2	2. Pollutant(s):
2. CMS Requirement: [X] Rule [ ] Other	
3. Monitor Information: Monitor Manufacturer: Yokogawa Model Number: ZA8C Serial Number: JJ113PA133	
4. Installation Date: 01 Oct 1995	
5. Performance Specification Test Date:	
6. Continuous Monitor Comment (limit to 200 characters): 40 CFR 60, Subpart Da	

Continuous Monitoring System Continuous Monitor ____ of ____

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

   [X] 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.

[X] 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	[X] C	[ ] E	[ ] Unknown
	SO_2	[X] C	[ ] E	[ ] Unknown
	NO_2	[X] C	[ ] E	[ ] Unknown
4.	Baseline Emissions:			
	PM	0 lb/hour	0 tons/year	
	SO_2	0 lb/hour	0 tons/year	
	NO_2		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	
	[X] Attached, Document ID: PART B	
	[ ] Not Applicable	[ ] Waiver Requested
2.	Fuel Analysis or Specification	
	[X] Attached, Document ID: PART B	
	[ ] Not Applicable	[ ] Waiver Requested
3.	Detailed Description of Control Equipment	
	[X] Attached, Document ID: PART B	
	[ ] Not Applicable	[ ] Waiver Requested
4.	Description of Stack Sampling Facilities	
	[ ] Attached, Document ID: _____	
	[X] Not Applicable	[ ] Waiver Requested
5.	Compliance Test Report	
	[ ] Attached, Document ID: _____	[X] Not Applicable
	[ ] Previously Submitted, Date: _____	
6.	Procedures for Startup and Shutdown	
	[ ] Attached, Document ID: _____	[X] Not Applicable
7.	Operation and Maintenance Plan	
	[ ] Attached, Document ID: _____	[X] Not Applicable
8.	Supplemental Information for Construction Permit Application	
	[X] Attached, Document ID: PART B	[ ] Not Applicable
9.	Other Information Required by Rule or Statute	
	[X] Attached, Document ID: PART B	[ ] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operation

[ ] Attached, Document ID: _____ [X] Not Applicable

11. Alternative Modes of Operation (Emissions Trading)

[ ] Attached, Document ID: _____ [X] Not Applicable

12. Identification of Additional Applicable Requirements

[ ] Attached, Document ID: _____ [X] Not Applicable

13. Compliance Assurance Monitoring Plan

[ ] Attached, Document ID: _____ [X] Not Applicable

14. Acid Rain Permit Application (Hard Copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID: _____

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID: _____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID: _____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID: _____

[X] 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:

[x] 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:

[x] 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): **Boiler No.3 fired by Biomass/No.2 oil/coal/TDF**		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [X] Unknown		
3. Emissions Unit Status Code: C	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49
6. Emissions Unit Comment (limit to 500 characters): **74.9 MW gross generating capacity for entire facility.**		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters):

ESP - Electrostatic Precipitator

2. Control Device or Method Code: **10**

B.

1. Description (limit to 200 characters):

Selective Non-Catalytic Reduction for NOx

2. Control Device or Method Code: **107**

C.

1. Description (limit to 200 characters):

Activated Carbon injection system.

2. Control Device or Method Code: **48**

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: Dwell Time: Incinerator Afterburner Temperature:	 °F seconds °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): **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**			

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 Cd (record keeping only)

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 3
2. Emission Point Type Code: [x] 1 [ ] 2 [ ] 3 [ ] 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: [ ] D [ ] F [ ] H [ ] P [ ] R [x] V [ ] W
6. Stack Height: 225 feet
7. Exit Diameter: 8 feet
8. Exit Temperature: 295 °F

9. Actual Volumetric Flow Rate:	**246,000** 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): **Stack parameters based on biomass firing.**	

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): **Electric Utility boiler - bagasse**	
2. Source Classification Code (SCC): **1-01-011-01**	
3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **84.118**	5. Maximum Annual Rate: **736,874**
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): **Maximum percent Sulfur: 0.025. Maximum Percent Ash: 0.83. Million Btu per SCC Unit: 8.5. Total biomass all three boilers = 1,352,941 TPY.**	

Segment Description and Rate: Segment 2 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Electric Utility Boiler - Wood Fired Boiler**	
2. Source Classification Code (SCC): **1-01-009-03**	
3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **65**	5. Maximum Annual Rate: **569,400**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash: **3.2**
9. Million Btu per SCC Unit: **11**	
10. Segment Comment (limit to 200 characters): **Maximum Percent Sulfur: 0.025. Total biomass all three boilers = 1,352,941 TPY.**	

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):

Electric Utility Boiler - Distillate Oil - Grades 1 and 2 oil

2. Source Classification Code (SCC):

1-01-005-01

3. SCC Units:

Thousand Gallons Burned

4. Maximum Hourly Rate:	5. Maximum Annual Rate:
3.551	**7,745**

6. Estimated Annual Activity Factor:

7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
0.05	

9. Million Btu per SCC Unit:

138

10. Segment Comment (limit to 200 characters):

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.

Segment Description and Rate: Segment 4 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Electric Utility boiler - Butiminous Coal - Spreader Stoker**	
2. Source Classification Code (SCC): **1-01-002-04**	
3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **20.417**	5. Maximum Annual Rate: **70,167**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: **0.7**	8. Maximum Percent Ash: **3.7**
9. Million Btu per SCC Unit: **24**	
10. Segment Comment (limit to 200 characters): **Total coal all three boilers = 70,167 TPY (16% coal burning on a heat input basis). The combined heat input for coal and oil <25% on a calendar quarter basis.**	

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): **Electric Utility Boiler - Solid Waste - Tire Derived Fuel**	
2. Source Classification Code (SCC): **1-01-012-01**	
3. SCC Units: **Tons Burned**	
4. Maximum Hourly Rate: **11**	5. Maximum Annual Rate: **81,613**
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: **1.2**	8. Maximum Percent Ash: **5**
9. Million Btu per SCC Unit: **31**	
10. Segment Comment (limit to 200 characters): **Maximum hourly rate based on 340 MMBtu/hr TDF. total TDF all three boilers = 81,613 TPY. This represents 9.1% TDF burning on a weight basis.**	

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: Pollutant 1 of 14

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

Emissions Unit Information Section 3 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

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

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: Pollutant 2 of 14

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

Emissions Unit Information Section 3 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.03 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**21.5** lb/hour **94.17** 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): **Basis for Allowable Emissions Code: NSPS. Maximum lb/hr based on biomass firing.**	

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: Pollutant 3 of 14

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

Emissions Unit Information Section 3 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.1 lb/MMBtu	
4. Equivalent Allowable Emissions:	71.5 lb/hour 62.6 tons/year
5. Method of Compliance (limit to 60 characters): Continuous SO2 monitor	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): 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. Annual TPY: 715 MMBtu/hr x 0.02 x 8,760 hr/yr = 62.6 TPY	

B.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 1.2 lb/MMBtu	
4. Equivalent Allowable Emissions:	408 lb/hour 1,191.4 tons/year
5. Method of Compliance (limit to 60 characters): Continuous SO2 monitor.	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Requested Allowable Emissions: 1.2 lb/MMBtu, 24-hr avg.; 0.8 lb/MMBtu, annual avg. Based on tire-derived fuel firing. Annual TPY: 81,613 TPY TDF x 15,500 Btu/lb x 0.8 lb/MMBtu = 1,012.0 TPY	

Emissions Unit Information Section 3 of 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **1.2 lb/MMBtu**
4. Equivalent Allowable Emissions: **588** lb/hour **641.3** tons/year
5. Method of Compliance (limit to 60 characters): **Limit coal burning to 24.9% for any single boiler.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Basis for Allowable Emissions Code: NSPS. Based on coal firing.**

B.

1. Basis for Allowable Emissions Code: **RULE**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.05 lb/MMBtu**
4. Equivalent Allowable Emissions: **22.5** lb/hour **24.5** tons/year
5. Method of Compliance (limit to 60 characters): **Limit fuel oil burning to 24.9% for any single boiler.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing and BACT.**

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

Pollutant Detail Information: Pollutant 4 of 14

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

Emissions Unit Information Section 3 of 5
Allowable Emissions (Pollutant identified on front page)

A.

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

B.

1. Basis for Allowable Emissions Code: **ESCPSD**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.15 lb/MMBtu**
4. Equivalent Allowable Emissions: **67.5** lb/hour **73.6** tons/year
5. Method of Compliance (limit to 60 characters): **Limit fuel oil burning to 24.9% for any single boiler.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing**

Emissions Unit Information Section 3 of 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **ESCPSD**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.17 lb/MMBtu**
4. Equivalent Allowable Emissions: **83.3** lb/hour **90.8** tons/year
5. Method of Compliance (limit to 60 characters): **Limit coal burning to 24.9% for any single boiler.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing**

B.

1. Basis for Allowable Emissions Code: **ESCPSD**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.15 lb/MMBtu**
4. Equivalent Allowable Emissions: **51** lb/hour **223.4** tons/year
5. Method of Compliance (limit to 60 characters): **Annual stack test using EPA Method 7 or 7E.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on tire-derived fuel firing. Limit TDF firing to 25% on a weight basis.**

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

Pollutant Detail Information: Pollutant 5 of 14

1. Pollutant Emitted: CO
2. Total Percent Efficiency of Control: %
3. Potential Emissions: 250.3 lb/hour 1,096.3 tons/year
4. Synthetically Limited? [x] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: 0.35 lb/MMBtu Reference: Boiler Design
7. Emissions Method Code: [ ] 0 [ ] 1 [x] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): 0.35 lb/MMBtu x 715 MMBtu/hr = 250.3 lb/hr
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): 2,012.5 TPY total for all boilers

Emissions Unit Information Section 3 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.2** **lb/MMBtu**
4. Equivalent Allowable Emissions: **98** lb/hour **106.9** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 10 annually.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing. Limit coal burning to 24.9% each boiler.**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.35** **lb/MMBtu**
4. Equivalent Allowable Emissions: **63** lb/hour **275.9** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 10 annually.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on tire-derived fuel firing. TDF firing limited to 25% for each boiler.**

Emissions Unit Information Section 3 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

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

B.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.2 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**90** lb/hour **98.2** tons/year
5. Method of Compliance (limit to 60 characters): **Limit fuel oil burning to 24.9% for any single boiler.**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing**	

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

Pollutant Detail Information: Pollutant 6 of 14

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

Emissions Unit Information Section 3 of 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **ESCNAA**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.03 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**14.7** lb/hour **16** tons/year
5. Method of Compliance (limit to 60 characters): **Limit coal burning to 24.9% for any single boiler**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing**	

B.

1. Basis for Allowable Emissions Code: **ESCNAA**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.06 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**10.8** lb/hour **47.3** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 25 or 25A annually**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on tire-derived fuel firing. TDF firing limited to 25% for any single boiler(weight basis).**	

Allowable Emissions (Pollutant identified on front page)

A.

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

B.

1. Basis for Allowable Emissions Code: **ESCNAA**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **0.03 lb/MMBtu**	
4. Equivalent Allowable Emissions: **13.5** lb/hour	**14.7** tons/year
5. Method of Compliance (limit to 60 characters): **See Comment**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing. Limit No.2 fuel oil burning to 24.9% entire facility and for any single boiler.**	

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

Pollutant Detail Information: Pollutant 7 of 14

1. Pollutant Emitted: PB
2. Total Percent Efficiency of Control: 99 %
3. Potential Emissions: 0.031 lb/hour 0.173 tons/year
4. Synthetically Limited? [x] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: 6.4 E-05 lb/MMBtu Reference: See Part B
7. Emissions Method Code: [ ] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [x] 5
8. Calculation of Emissions (limit to 600 characters): 6.4 E-05 lb/MMBtu x 490 MMBtu/hr = 0.031 lb/hr.
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): Max emissions due to coal firing. Facility emissions are 0.173 TPY total all boilers.

Emissions Unit Information Section 3 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **2.5 E-05 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.018** lb/hour **0.079** tons/year
5. Method of Compliance (limit to 60 characters): **Stack test using EPA Method 12 once every 5 years.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Biomass Firing**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **8.9 E-07 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.0004** lb/hour **0.0019** tons/year
5. Method of Compliance (limit to 60 characters): **Stack test using EPA Method 12 once every 5 years.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **No.2 fuel oil firing**

Emissions Unit Information Section 3 of 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **6.4 E-05 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.031** lb/hour **0.136** tons/year
5. Method of Compliance (limit to 60 characters): **Stack test using EPA Method 12 once every 5 years.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Coal Firing**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **4.2 E-05 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.0143** lb/hour **0.063** tons/year
5. Method of Compliance (limit to 60 characters): **Stack test using EPA Method 12 once every 5 years.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **TDF firing**

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

Pollutant Detail Information: Pollutant 8 of 14

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

Emissions Unit Information Section 3 of 5
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: OTHER
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 0.01 lb/MMBtu
4. Equivalent Allowable Emissions: 17.6 lb/hour 19.2 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 8 once every 5 years.
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on coal firing

B.

1. Basis for Allowable Emissions Code: OTHER
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 0.01 lb/MMBtu
4. Equivalent Allowable Emissions: 3.4 lb/hour 14.9 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 8 once every 5 years.
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on tire-derived fuel firing.

Emissions Unit Information Section 3 of 5
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.003 lb/MMBtu**
4. Equivalent Allowable Emissions: **2.2** lb/hour **9.6** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 8 once every 5 years.**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on biomass firing**

B.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.0015 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.74** lb/hour **3.2** 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): **Based on No.2 fuel oil firing.**

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

Pollutant Detail Information: Pollutant 9 of 14

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

Emissions Unit Information Section 3 of 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 6.3 E-06 lb/MMBtu	
4. Equivalent Allowable Emissions:	0.0031 lb/hour 0.0034 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): Based on No.2 fuel oil firing	

B.

1. Basis for Allowable Emissions Code: OTHER	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.024 lb/MMBtu	
4. Equivalent Allowable Emissions:	11.8 lb/hour 21.23 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 13A or 13B once every 5 years.	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on coal firing	

Emissions Unit Information Section 3 **of** 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **6.5 E-04 lb/MMBtu**
4. Equivalent Allowable Emissions: **0.22** lb/hour **0.96** 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): **Based on TDF firing.**

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: Pollutant 10 of 14

1. Pollutant Emitted: **H114**
2. Total Percent Efficiency of Control: %
3. Potential Emissions: **0.0046** lb/hour **0.03** tons/year
4. Synthetically Limited? [x] Yes [ ] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: **See Part B** Reference: **See Part B**
7. Emissions Method Code: [x] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): **Annual TPY limited by permit condition.**
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): **Total emissions all three boilers cannot exceed 0.030 TPY.**

Emissions Unit Information Section 3 of 5

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**
2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.03 TPY**
4. Equivalent Allowable Emissions: **0.0046** lb/hour **0.03** tons/year
5. Method of Compliance (limit to 60 characters): **Stack testing using EPA Method 101a**
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Fuel management plan to be submitted after stack testing and determination of actual mercury emission factors.**

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: Pollutant 11 of 14

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

Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **5.9 E-06 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**0.0029** lb/hour **0.0052** tons/year
5. Method of Compliance (limit to 60 characters): **Stack testing using EPA Method 104**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on coal firing**	

B.

1. Basis for Allowable Emissions Code: **OTHER**	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: **3.5 E-07 lb/MMBtu**	
4. Equivalent Allowable Emissions:	**0.0002** lb/hour **0.0002** tons/year
5. Method of Compliance (limit to 60 characters): **Stack testing using EPA Method 104**	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): **Based on No.2 fuel oil firing.**	

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Visible Emissions Limitations: Visible Emissions Limitation 1 of 1

1.	Visible Emissions Subtype: VE20
2.	Basis for Allowable Opacity: [X] Rule [ ] Other
3.	Requested Allowable Opacity Normal Conditions: 20 % Exceptional Conditions: 27 % Maximum Period of Excess Opacity Allowed: 6 min/hour
4.	Method of Compliance: EPA Method 9
5.	Visible Emissions Comment (limit to 200 characters):

Visible Emissions Limitations: Visible Emissions Limitation _____ of _____

1.	Visible Emissions Subtype:
2.	Basis for Allowable Opacity: [ ] Rule [ ] 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: VE	2. Pollutant(s):
2. CMS Requirement: [X] Rule [ ] Other	
3. Monitor Information: Monitor Manufacturer: Durag Model Number: D-R281AV Serial Number: 31018	
4. Installation Date: 01 Oct 1995	
5. Performance Specification Test Date:	
6. Continuous Monitor Comment (limit to 200 characters): 40 CFR 60, Subpart Da	

Continuous Monitoring System Continuous Monitor 2 of 5

1. Parameter Code: NOx	2. Pollutant(s):
2. CMS Requirement: [X] Rule [ ] Other	
3. Monitor Information: Monitor Manufacturer: Thermo Environmental Instruments Model Number: 42D Serial Number: 42D-51031-292	
4. Installation Date: 01 Oct 1995	
5. Performance Specification Test Date:	
6. Continuous Monitor Comment (limit to 200 characters): 40 CFR 60, Subpart Da	

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 3 of 5

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

Continuous Monitoring System Continuous Monitor 4 of 5

1. Parameter Code: CO	2. Pollutant(s):
2. CMS Requirement: [ ] Rule [X] Other	
3. Monitor Information: Monitor Manufacturer: Thermo Environmental Insturments Model Number: 48 Serial Number: 48-52605-292	
4. Installation Date: 01 Oct 1995	
5. Performance Specification Test Date:	
6. 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: O2	2. Pollutant(s):
2. CMS Requirement: [X] Rule [ ] Other	
3. Monitor Information: Monitor Manufacturer: Yokogawa Model Number: ZA8C Serial Number: JJ113PA135	
4. Installation Date: 01 Oct 1995	
5. Performance Specification Test Date:	
6. Continuous Monitor Comment (limit to 200 characters): 40 CFR 60, Subpart Da	

Continuous Monitoring System Continuous Monitor _____ of _____

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

   [x] 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.

[X] 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	[X] C	[ ] E	[ ] Unknown
	SO_2	[X] C	[ ] E	[ ] Unknown
	NO_2	[X] C	[ ] E	[ ] Unknown
4.	Baseline Emissions:			
	PM	0 lb/hour	0 tons/year	
	SO_2	0 lb/hour	0 tons/year	
	NO_2		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	
	[X] Attached, Document ID: PART B	
	[ ] Not Applicable	[ ] Waiver Requested
2.	Fuel Analysis or Specification	
	[X] Attached, Document ID: PART B	
	[ ] Not Applicable	[ ] Waiver Requested
3.	Detailed Description of Control Equipment	
	[X] Attached, Document ID: PART B	
	[ ] Not Applicable	[ ] Waiver Requested
4.	Description of Stack Sampling Facilities	
	[ ] Attached, Document ID: _____	
	[X] Not Applicable	[ ] Waiver Requested
5.	Compliance Test Report	
	[ ] Attached, Document ID: _____	[X] Not Applicable
	[ ] Previously Submitted, Date: _____	
6.	Procedures for Startup and Shutdown	
	[ ] Attached, Document ID: _____	[X] Not Applicable
7.	Operation and Maintenance Plan	
	[ ] Attached, Document ID: _____	[X] Not Applicable
8.	Supplemental Information for Construction Permit Application	
	[X] Attached, Document ID: PART B	[ ] Not Applicable
9.	Other Information Required by Rule or Statute	
	[X] Attached, Document ID: PART B	[ ] Not Applicable

Additional Supplemental Requirements for Category I Applications Only

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

[x] 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:

[x] 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): **No.2 Fuel Oil Storage Tank**		
2. Emissions Unit Identification Number: [X] No Corresponding ID [ ] Unknown		
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49
6. Emissions Unit Comment (limit to 500 characters):		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

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

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **No.2 Fuel Oil: Breathing Loss**	
2. Source Classification Code (SCC): **4-03-010-19**	
3. SCC Units: **1,000 Gallons Storage Capacity**	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor: **50**	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters): **50,000 gallon tank**	

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **No.2 Fuel Oil: Working Loss**	
2. Source Classification Code (SCC): **4-03-010-21**	
3. SCC Units: **1,000 Gallons Throughput**	
4. Maximum Hourly Rate:	5. Maximum Annual Rate: **19,533,086**
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

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	[ ] C	[ ] E	[ ] Unknown
	SO_2	[ ] C	[ ] E	[ ] Unknown
	NO_2	[ ] C	[ ] E	[ ] Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO_2	lb/hour		tons/year
	NO_2			tons/year
5.	PSD Comment (limit to 200 characters):			

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.

[X] 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.

[X] 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): **Materials Handling**		
2. Emissions Unit Identification Number: [X] No Corresponding ID [ ] Unknown		
3. Emissions Unit Status Code: C	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49
6. Emissions Unit Comment (limit to 500 characters):		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters): **Baghouse**
2. Control Device or Method Code: **18**

B.

1. Description (limit to 200 characters): **Enclosures**
2. Control Device or Method Code: **54**

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

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

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): **Bulk materials open stockpiles: Biomass**	
2. Source Classification Code (SCC): **3-02-103-99**	
3. SCC Units: **Tons**	
4. Maximum Hourly Rate:	5. Maximum Annual Rate: **1,352,941**
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			WP
PM10			WP

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.

   [X] 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	[X] C	[ ] E	[ ] Unknown
	SO_2	[ ] C	[ ] E	[ ] Unknown
	NO_2	[ ] C	[ ] E	[ ] Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO_2	lb/hour		tons/year
	NO_2			tons/year
5.	PSD Comment (limit to 200 characters):			

PART B

SUPPLEMENTAL INFORMATION FOR PERMIT APPLICATION

OKEELANTA POWER LIMITED PARTNERSHIP

1.0 INTRODUCTION

Okeelanta Power Limited Partnership (Okeelanta Power) was issued a prevention of significant deterioration (PSD) permit in 1993 for construction of a 74.9 megawatt electric (MWe) cogeneration facility. The cogeneration facility, which is now in the startup period, will use primarily biomass (bagasse and wood waste materials) to generate steam and electricity. The cogeneration facility is located at the site of the existing Okeelanta Corporation sugar mill, south of South Bay, Florida. The existing sugar mill boilers will be replaced with the cogeneration system consisting of three new combustion units and a steam turbine electric generator. After the cogeneration facility begins commercial operation, the existing sugar mill boilers 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 for the needs of the Okeelanta sugar mill and will generate electricity which will be sold to Florida Power & Light Company (FPL). Further, the proposed facility will reduce overall air emissions and water consumption compared to the existing 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. Since that time, final engineering and construction has been completed and the facility is now in the startup period. As a result, certain design and operating parameters can now be updated. Based on the current design of the plant, Okeelanta Power is requesting certain changes to the current PSD construction permit. The primary changes are for the use of tire-derived fuel (TDF) as a supplemental fuel.

TDF will be utilized primarily in the off-season when bagasse fuel is not available but may also be used during the crop season to extend the bagasse supply. During the off-season, the primary fuel for the facility will be wood waste. However, wood waste is not a commodity fuel, and as such, supplies and availability may vary depending on various factors. The use of TDF as supplemental fuel will help insure an adequate fuel supply is available to operate the facility year-round and meet the demands of the sugar mill.

The requested use of TDF as a supplemental fuel will not increase emissions to the atmosphere of any PSD regulated pollutants. Therefore, the changes do not require PSD or nonattainment new source review. Other requested changes to the current permit are minor in nature, and do not represent a significant change from the current permit.

This report presents a description of the proposed changes, including updated design information for the facility and emission rates for TDF firing. This supplemental information report contains three additional sections. A complete description of the project, including air emission rates and stack parameters, 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

Okeelanta Power 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 was expected to produce 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 limited 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 was limited to 11.5×10^{12} Btu/yr, and maximum coal burning was limited to 73,714 tons per year (TPY), which is approximately 16 percent of the total annual heat input. Except for the annual limitation on coal burning, all of these maximum rates are being retained. The annual coal burning limitation is being reduced to 15.2 percent of the annual heat input, or a maximum of 70,167 TPY, as described in Section 2.4.1.

In addition to the currently permitted fuels, it is desired 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, with TDF input not exceeding 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 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 Okeelanta Power will accept a limit restricting the amount of MSW burned in each boiler to less than 30 percent (by weight) on a calendar quarter basis, 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_x emissions, and a mercury control system.

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

This section presents updated operating information concerning the cogeneration facility. Information presented in the original PSD application is provided, even if such information has not changed since the original submittal, in order to provide complete information.

2.2.1 STEAM TURBINE AND BOILERS

The maximum 74.9 MWe (gross) cogeneration system will provide steam to the Okeelanta sugar mill, and additionally will deliver a substantial amount of electricity to FPL to supply its customers in south Florida. This capacity is the same as originally permitted.

The facility will operate with three steam boilers burning biomass (primarily bagasse and wood waste materials). In the original application, information was presented for Zurn International boilers. However, Okeelanta Power has installed ABB boilers. The boilers are ABB Combustion Engineering Systems Model VU-40 units. Design features of the boilers include the following:

- ABB Model VU-40 steam generator
- Two-drum, field erected, open pass, balanced draft steam generators
- Water cooled furnace with electrical resistance welded steel boiler tubes
- Superheater section
- Economizer section

- Primary and overfire air systems
- Primary air preheater
- Overfire air preheater
- Plenum hoppers, boiler hoppers and air heater hoppers for collection of fly ash
- Forced draft and induced draft fans
- Primary and overfire air systems
- Peabody Model DFL-870, No. 2 fuel oil burners (3); steam atomizing; 160 MMBtu/hr maximum heat input each burner
- Spreader stoker, with continuous front ash discharge, vibrating grate, water cooling, grate area of 624 ft^2

Design data for each boiler, which are revised from the original application, are as follows:

Furnace volume = 40,700 ft^3

Steam temperature = 955°F

Steam pressure = 1,755 psig (design); 1,540 psig (operating)

Maximum average steam output = 455,418 lb/hr

Maximum heat input = 715 x 10^6 Btu/hr (biomass)
= 490 MMBtu/hr (No.2 fuel oil)
= 490 x 10^6 Btu/hr (coal)
= 340 x 10^6 Btu/hr (tire-derived fuel)

The boilers are balanced draft boilers and will operate under a slight negative pressure (about 0.1 inch H_2O). A balanced draft furnace prevents leakage of flue gas out of the unit. Any air movement through the boiler walls will be in the form of air in-leakage.

The boilers are designed for a pressure of 1,755 psig. The actual operating pressure will be approximately 1,540 psig with a steam temperature of approximately 955°F. Maximum average steam production for each boiler will be 455,418 lb/hr, the same as presented in the original application. A general arrangement view of the boilers is provided in Appendix B.

The cogeneration facility will be designed to provide the Okeelanta sugar mill and refinery with approximately 350,000 lb/hr of steam at 350 psig and 650°F, and approximately 442,000 lb/hr of steam at 20 psig and 280°F during the crop season. These steaming rates may vary as a function

of operational conditions; equipment and process efficiencies; characteristics of the biomass fuel, which is an agricultural product and somewhat variable; and overall sugar mill production rate. The process steam conditions will normally be controlled within a ± 10 percent range. During normal operating conditions, the process steam flow can be expected to fluctuate within a ± 25 percent range. During startup, shutdown, upset, or transient conditions, steam flow could diminish to zero.

The facility will produce up to 74.9 MWe (gross) of electricity year-round. A simplified flow diagram of the process is provided in Figure 2-3.

The cogeneration facility is currently in the startup period. First firing in the boilers occurred in October 1995. Commercial operation is expected to occur in May 1996.

2.2.2 FUELS

Okeelanta Power 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 will have the capability to burn biomass, biomass/TDF, very low sulfur fuel oil, and coal.

The cogeneration facility will use very low sulfur No. 2 fuel oil only to assist in startup or when the biomass fuel supply is not adequate. The No. 2 distillate fuel oil will have a maximum sulfur content of 0.05 percent and an equivalent maximum SO_2 emission rate of 0.05 lb/MMBtu.

Coal will be utilized only when the biomass fuel supply is not adequate. Coal fired in the facility will be low sulfur coal of approximately 0.7 percent sulfur content, with an equivalent maximum SO_2 emission rate of 1.2 lb/MMBtu.

TDF fuel is produced by chipping whole tires and removing the wire bead. The TDF will be generated at offsite locations and trucked to the Okeelanta Power facility.

Biomass, coal, and TDF will be burned on a vibrating grate located within each boiler. In this design, fuel combusts in suspension above the grate or on the grate surface. Both underfire and overfire air are supplied to enhance combustion efficiency. Ash is removed from the grate by periodically vibrating the grate. The boilers will be equipped with fuel oil burners designed to provide maximum combustion efficiency. An associated fuel storage tank and piping is also installed.

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 11.50×10^{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 15.2 percent annually on a heat input basis, or to 70,167 TPY. Total fossil fuel burning will also be limited to 24.9 percent on a calendar quarter basis. TDF burning will be limited to 22 percent annually on a facility-wide basis (heat input basis), or to 81,613 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 x 10^{12} Btu/yr for the entire facility (total all three boilers). 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 x 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 15.2 percent of the total annual heat input, the annual heat input requirement for the entire facility becomes 11.08 x 10^{12} Btu/yr. Under the worst-case TDF firing scenario of 22 percent of the total annual heat input (9.1 percent on a weight basis), the annual heat input requirement for the entire facility is 11.50 x 10^{12} Btu/yr.

2.2.3 FUEL HANDLING SYSTEM

The fuel handling system is currently designed to handle biomass only. The fuel systems are designed to feed reduced rates to the boilers to match boiler demand/use rates. Biomass fuel can be delivered to the facility and boilers in several ways. A flow diagram of the biomass fuel handling system is presented in Figure 2-4.

Under normal conditions during the grinding season, bagasse from the sugar mill is delivered directly to the boilers by a belt conveyor system. Overfeed from the system is conveyed to the biomass storage pile. Wood waste can be mixed with the bagasse in the biomass storage pile and be utilized during the grinding season as needed. The biomass is conveyed from the biomass storage pile to the boilers through the biomass handling system. These conveyor belts are enclosed, and the conveyor transfer points are partially or totally enclosed.

During the non-grinding season and at other times as necessary, wood waste will be delivered to the facility by truck. The trucks will discharge the material into a dump hopper. The truck dump hopper is open, but all subsequent conveyor belts are covered and transfer points will be partially enclosed. From the dump hoppers, the wood waste will be placed on a conveyor belt, pass through a screen and hogger, and then placed on another conveyor to the boiler building or to the biomass storage pile. If directed to the boilers, the material will be transferred from the conveyor belt to the fuel distribution conveyor and then to the boiler feeder bins.

If directed to the biomass storage pile, the biomass is transferred to the radial stacker, and then discharged onto the storage pile. From the storage pile, the biomass will be moved by mobile

equipment to the underpile reclaimer devices. Biomass from the reclaim system will be deposited on a conveyor and delivered to the boilers via the previously described system.

A baghouse dust collector is located at the boiler building in order to control particulate emissions potentially generated from the distribution conveyors and the transfer hoppers in the boiler house. A schematic of this system is shown in Figure 2-4 and Appendix B. The baghouse is a Sly model STJ-1916-10 designed for 30,000 acfm with an air-to-cloth ratio of 6.6:1. The baghouse is located outside of the boiler building at ground level.

In order to accommodate TDF firing, a feed hopper and conveyor will be constructed to feed TDF material onto the boiler feed conveyor (see Figure 2-4). The TDF will mix with biomass either on the boiler feed conveyor or in the boiler feed hopper. TDF will be stored in an existing bermed storage area at the site (see Figure 2-5). The TDF will be moved by frontend loader from the storage area to the feed hopper. A separate waste tire permit application is being prepared for the storage area, and will be submitted to FDEP.

Coal handling facilities will be constructed as needed prior to coal-firing. The coal handling system will consist of unloading, transfer, storage, reclaiming, and crushing operations. The railcar unloading system will utilize a bottom dumping type facility or equivalent. Coal will be delivered to the site via trains consisting of up to 75 railcars or by truck. Each railcar may hold up to 100 tons and each truck up to 25 tons.

2.2.4 ASH HANDLING SYSTEM

Ash generated from the combustion process will consist of bottom ash, siftings ash, and fly ash. Bottom ash is ash which falls off the front of the grate onto a submerged conveyor. Siftings ash is ash which drops down through the grate to the bottom of the boiler. Fly ash is ash captured downstream of the boiler in the boiler bank hoppers, air preheater hoppers, and the ESP.

Bottom ash generated in the boilers will be handled wet via a submerged drag-chain conveyor. This ash will be discharged to an enclosed storage pile and then removed by frontend loader. The frontend loader will be used to the load the ash into trucks for offsite disposal. Bottom ash will be handled in a wet state and therefore particulate emissions will be minimal.

The siftings ash collected at the bottom of the boiler will be periodically removed from the boiler by manual means on an as needed basis. This ash will be loaded into trucks by frontend loader for subsequent offsite disposal.

The fly ash collected downstream of the boiler will be conveyed via enclosed drag-chain or screw type conveyors to an ash silo (one silo for the facility). The ash will be conditioned with water prior to loading into trucks for offsite disposal. The silo will have a silo bin vent filter to control particulate matter emissions. A schematic of this system is presented in Appendix B. The design flow rate for the filter is 2,500 acfm, with an air-to-cloth ratio of 4:1.

2.2.5 FACILITY PLOT PLAN

A revised plot plan of the Okeelanta Power cogeneration facility is presented in Figure 2-5. The major structure at the site is the boiler building. This building has a height of approximately 121 feet above ground.

2.2.6 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 NO_x emissions. SNCR is a system which injects urea into the boiler to reduce 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.

Electrostatic Precipitator

Design data for ESPs manufactured by Research-Cottrell were presented in the original application. However, the ESPs for the Okeelanta Power facility are manufactured by Flakt, Inc. The ESPs are equivalent to those described in the original application. A drawing of each ESP is provided in Appendix B. Design specifications for the ESP (one per boiler) are provided below:

Chambers = 1

Collecting Plate = 12.30 ft L x 39.37 ft H

Fields/Chamber = 3

Specific Collection Area = 200 ft^2/1,000 acfm (minimum)

Gas Velocity = <4 ft/s

Pressure Drop = less than 2.8 inches H_2O

Operating Temperature = 350°F

Ash Handling = Trough hopper with screw conveyor

Particulate removal efficiency: >99.2%

NO_x Control System

Generic information regarding the NO_x control system was presented in the original application. The final design employs a urea injection system manufactured by Nalco-Fueltech for NO_x control. The technology is a selective non-catalytic reduction process, which reduces NO_x emissions through chemical reaction with urea. In the process, urea is injected into the flue gas stream and reacts with nitrogen oxides to form nitrogen and water vapor.

The NO_x control system includes the following major components:

- Carrier air compressors.
- Urea tank.
- Urea/air flow controls.
- Control panel.
- Injection manifolds and injectors.
- Valves and instrumentation.

A single urea storage tank system is installed to supply urea to all three boilers. Urea for injection into the boilers is drawn from the tank. Two injection zones are used to provide injection at full and part load conditions. Each zone has six injectors. A schematic of the injector configuration is presented in Appendix B. Zone switching valves will direct the urea/carrier mixture to the appropriate injection zone.

Specifications for the urea injection system to meet the proposed NO_x emission rate of 0.15 lb/MMBtu when firing biomass, No. 2 fuel oil or TDF, and 0.17 lb/MMBtu when firing coal, are provided below (on a per boiler basis):

Urea injection rate - 65 gal/hr (max)

Ammonia Slip - Biomass, No. 2 fuel oil - 25 ppm (max)

- Coal, TDF - 65 ppm (max)

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 ESP and the ID fan. 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 13 lb/hr of carbon into the flue gases of each boiler. A schematic of the carbon injection configuration is shown in Appendix B.

An elevation view of the carbon storage silo is presented in Appendix B. Carbon will be delivered to the facility by truck and pneumatically conveyed to the silo. The silo is divided into two compartments, one for each boiler. A dust collector sits atop the silo for control of dust emissions.

2.2.7 STACK PARAMETERS

Stack parameters for the cogeneration facility are presented in Table 2-3. Each of the three new boilers will be served by a separate stack. The top of each stack is 225 feet (ft) above ground. Each stack is 8.0 ft in diameter. The locations of the three stacks are shown in Figure 2-5.

2.2.8 DISTILLATE OIL FUEL TANK

A fuel oil tank is used to store the distillate fuel oil used for startup, shutdown and at other times as needed. The fuel oil tank has a capacity of 50,000 gallons, and is approximately 24 feet high with a 20 foot diameter. The tank is of fixed roof design.

2.2.9 SIMULTANEOUS OPERATION OF THE COGENERATION AND SUGAR MILL BOILERS

During the period from initial firing until commercial operation, the Okeelanta sugar mill boilers may operate simultaneously with the cogeneration boilers. Only biomass or No. 2 fuel oil will be fired in the cogeneration boilers during this period. In addition, if the cogeneration boilers

generate more than 910,836 lb/hr steam during this period, steam in excess of 910,836 lb/hr will be sent to the Okeelanta sugar mill, and the existing Okeelanta sugar mill boilers will reduce steam production by an equivalent amount. This period of simultaneous operation was not exceed a total duration of 12 months, and simultaneous operation during this 12-month period was not occur on more than 90 calendar days. However, Okeelanta Power has requested that this period of simultaneous operation be extended. This request was submitted in a letter from Okeelanta Power to FDEP dated April 17, 1996.

2.3 APPLICABILITY OF FEDERAL NEW SOURCE PERFORMANCE STANDARDS

2.3.1 NSPS FOR ELECTRIC UTILITY STEAM GENERATING UNITS

Based on the maximum heat input to the cogeneration facility boilers and the type of fuel burned, the boilers will be subject to the federal NSPS for electric utility steam generating units (40 CFR 60, Subpart Da). The Subpart Da standards are summarized in Table 2-4. For PM, the NSPS limits emissions to 0.03 lb/MMBtu when burning solid or liquid fuels. An opacity limit also applies, which limits opacity to 20 percent (6-minute average), except up to 27 percent opacity is allowed for one 6-minute period per hour.

The cogeneration units are classified as "resource recovery units", since combustion of non-fossil fuels will be more than 75 percent on a quarterly (calendar) heat input basis. For such units, the NSPS limits SO_2 emissions to 1.2 lb/MMBtu based on a 30-day rolling average. The proposed facility will comply with the NSPS for SO_2 by burning biomass, TDF in combination with biomass, low sulfur coal with a maximum sulfur content of approximately 0.7 percent, and very low sulfur distillate fuel oil with a maximum sulfur content of 0.05 percent. Equivalent maximum SO_2 emission rates are 1.2 lb/MMBtu for coal and TDF, and 0.05 lb/MMBtu for No. 2 fuel oil.

Biomass has an inherently low sulfur content (i.e., average of about 0.009 percent by weight). The maximum SO_2 emissions for biomass are 0.10 lb/MMBtu (24-hour average) and 0.02 lb/MMBtu, annual average.

TDF contains up to 1.2 percent sulfur, with potential SO_2 emissions of up to 1.6 lb/MMBtu. However, TDF will always be fired in combination with biomass, up to 25 percent on a weight basis. Under such conditions, published studies indicate significant SO_2 capture can be achieved,

due to the alkaline nature of wood fly ash, resulting in SO_2 emissions less than 1.2 lb/MMBtu. Supportive information for this conclusion is provided in Attachment E. Source testing while firing TDF/biomass will be used to demonstrate compliance with this limit.

The NSPS for NO_x is 0.30 lb/MMBtu heat input for fuel oil firing and 0.60 lb/MMBtu for solid fuels, including bagasse, wood, coal, and TDF. The proposed maximum NO_x emission rate for the facility for each fuel is lower than the NSPS. Compliance with the NO_x emissions limitation under Subpart Da is based on a 30-day rolling average.

Further requirements under 40 CFR 60 Subpart Da include emission monitoring. Continuous monitoring is required for opacity, NO_x, and carbon dioxide or oxygen.

2.3.2 NSPS FOR VOLATILE ORGANIC LIQUID STORAGE TANKS

The distillate fuel oil storage tank is subject to the requirements of federal NSPS for Volatile Organic Liquid (VOL) storage vessels. The NSPS applies to all tanks of greater than 15,000 gallon capacity which will store any VOL and which was constructed after July 23, 1984. The NSPS requirements for such a tank, contained in 40 CFR 60.116b, states that the owner/operator of the storage tank must maintain information relating to the dimensions and capacity of the storage tank. This information must be readily accessible and be kept for the life of the source. Okeelanta Power will comply with this requirement by maintaining tank specification information on file at the plant site.

2.3.3 NSPS FOR MUNICIPAL WASTE COMBUSTORS

EPA has recently promulgated revised NSPS for municipal waste combustors (MWCs). Three NSPS are potentially applicable to the Okeelanta cogeneration facility: Subpart Ea, Subpart Eb, and Subpart Cb. Subpart Ea applies to MWCs which commenced construction between December 21, 1989 and September 20, 1994; Subpart Eb applies to MWCs which commenced construction after September 20, 1994; and Subpart Cb applies to MWCs which commenced construction prior to September 20, 1994. Construction was commenced on the Okeelanta cogeneration facility between December 2, 1989 and September 20, 1994. Therefore, Subparts Ea and Cb are potentially applicable to the facility.

Although Okeelanta cogeneration intends to burn clean wood waste and TDF, the MWC regulations define municipal solid waste (MSW) to include yard waste and tires if obtained from household, commercial/retail and/or institutional sources. This broad definition would encompass materials potentially burned by Okeelanta. However, both Subparts Ea and Cb contain exemptions from the regulations for "co-fired combustors". A co-fired combustor is a unit which combusts MSW with non-MSW fuel and which is subject to a federally enforceable permit limiting the unit to less than 30 percent MSW (weight basis) as measured on a calendar quarter basis.

Okeelanta Power has previously requested that a permit condition be imposed on each unit at the facility that limits the amount of MSW combusted to less than 30 percent by weight on a calendar quarter basis (letter to FDEP dated November 9, 1995). Such a condition will insure that Okeelanta Power does not become subject to the NSPS for MWCs. This request was approved by FDEP on February 20, 1996, by means of an amendment to the construction and PSD permits.

2.4 EMISSIONS OF REGULATED POLLUTANTS FROM BOILERS

2.4.1 CRITERIA/DESIGNATED POLLUTANTS

The emission limits for all criteria/designated pollutants emitted by the Okeelanta Power boilers are presented in Table 2-5. The emission limits in terms of lb/MMBtu are the same as currently permitted, except in the case of SO_2 emissions due to wood waste firing. Initial data from Okeelanta Power's continuous SO_2 monitors indicates that SO_2 emissions due to wood waste firing are in the range of 0.02 to 0.04 lb/MMBtu. Based on analysis of the wood waste it is receiving, the sulfur content of the wood waste is higher than anticipated. Although significant SO2 capture in the alkaline fly ash is indicated, the current annual average SO_2 emission limit of 0.02 lb/MMBtu may not be achievable for wood waste. As a result, an annual average SO_2 emission limit of 0.05 lb/MMBtu is proposed for wood waste. The current 0.02 lb/MMBtu limit for bagasse is being retained. These limits, however, may be subject to revision based upon further testing.

Emission limits for tire-derived fuel (TDF) have been developed based on available TDF analysis and considering air pollution control equipment installed on the Okeelanta Power boilers. The TDF analysis and uncontrolled and controlled emission factors are presented in Table 2-6. The

proposed SO_2 emission limits for TDF are based on the sulfur content of TDF and expected sulfur capture in the alkaline fly ash when burning TDF in combination with biomass. If source testing indicates that the proposed limits cannot be met, the amount of TDF will be adjusted to comply with the overall annual SO_2 emission limit for the facility.

Maximum hourly emissions from each of the Okeelanta Power boilers for each fuel are presented in Table 2-7. 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) in Table 2-7. Emission factors and specific references are provided in Appendix A, Table A-1. 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.

The total annual emissions from all three boilers for each fuel scenario, including the proposed TDF firing, are presented in Table 2-8. These are based upon the same emission factors as presented in Table 2-5. 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 2-8. The maximum annual emissions for all of the criteria/designated pollutants are the same as currently permitted. Although maximum annual emissions of SO_2, beryllium, fluorides, and sulfuric acid mist are all lower than permitted due to the reduction in coal firing to 15.2 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.

In the case of mercury emissions, in order to meet the proposed mercury emission limit (in TPY) under certain fuel firing scenarios, the annual firing of bagasse, TDF, and/or coal may need to be limited due to the higher emission factors for bagasse, TDF, and coal compared to wood waste firing. The limits on firing of different fuels will depend upon the mix of fuels, actual emission factors, and the total heat input in any given year. Once operation of the facility commences, a test program will be undertaken by Okeelanta Power to establish actual mercury emission factors for each fuel. Based on the established emission factors, a fuel management plan will be implemented to insure the 0.0300 TPY mercury emission limit is not exceeded. The fuel management plan will be submitted to FDEP's West Palm Beach office and to the Palm Beach County Health Unit for review.

2.4.2 EMISSIONS OF HAZARDOUS/TOXIC AIR POLLUTANTS

Emission factors for hazardous air pollutants (HAPs) and other toxic air pollutants were obtained from various sources, as shown in Appendix A, Tables A-2 and A-3. These factors are generally the same as presented in the application for revision of Osceola Power's PSD permit in 1995. Many factors were available for wood waste firing as obtained from AP-42, NCASI technical bulletins, and other sources. Emission factors for bagasse were assumed to be the same as for wood waste firing. The HAP/toxic air pollutant emission factors are shown in Table 2-9, along with the maximum hourly emissions. Maximum annual HAP/toxic emissions are presented in Table 2-10.

The estimated HAP emissions also account for the possibility that up to 3.0 percent treated wood may be present in the wood-waste stream. Okeelanta Power will not knowingly accept treated wood. Nonetheless, the estimated emissions for arsenic, chromium, hexavalent chromium (Cr^{+6}) and copper are based on 3.0 percent treated wood in the wood-waste stream. Calculations and emission factors are presented in Tables 2-11 and 2-12. These emission factors are utilized in Tables 2-9 and 2-10.

Residual ammonia emissions are associated with use of a selective non-catalytic reduction (SNCR) system for NO_x emission control. For the Okeelanta Power boilers, a maximum of 25 ppm NH_3 slip is indicated by the SNCR vendor when burning biomass and No. 2 fuel oil, and 65 ppm for coal and TDF. The emission factors reflect these levels of ammonia slip.

2.4.3 TREATED WOOD BURNING

Although Okeelanta Power will not knowingly accept any treated wood for fuel at the facility, it is recognized that some small amount of treated wood may be present in the wood waste stream.

To minimize the potential for treated wood to be present in the wood waste stream, Okeelanta Power will not use any delivered wood fuel that contains an amount of treated or painted wood which would cause the wood waste to contain more than 70.7 ppm arsenic, 83.3 ppm chromium, or 62.8 ppm copper based upon a composite sample of the fuel. These concentrations are based upon a treated wood content of 3.0 percent. The derivation of these concentrations is based upon the concentrations of these substances present in both clean wood waste and treated wood (refer to Table 2-11).

The emission factors for arsenic, chromium and copper based upon 3.0 percent treated wood burning are presented in Tables 2-9 and 2-10. To estimate maximum short-term emissions, it is assumed that 100 percent wood waste is being fired, with 3.0 percent treated wood. To estimate maximum annual emission factors, it is expected that 33 percent of the biomass fuel will be wood waste, and 67 percent will be bagasse.

2.5 FUGITIVE EMISSIONS OF PARTICULATE MATTER

Sources of fugitive particulate emissions are identified based on the descriptions of the biomass, coal and ash handling and storage processes as presented in previous sections. Fugitive dust emissions from TDF handling are not expected, other than emissions from frontend loader movement in the TDF storage area. Emissions of fugitive dust can occur from four types of material handling operations: batch or continuous drop, crushing, wind erosion, and vehicular traffic. An updated emission inventory, identifying activities, uncontrolled emission factors, controls, activity factors, and annual fugitive dust emissions is presented in Table 2-13. These are in general the same factors and controls presented in the original application for the Okeelanta Power facility. Supportive information concerning wind erosion and vehicular traffic are presented in Appendix C.

For the biomass handling system the worst case flow of fuel was assumed, i.e., all of the biomass burned at the facility being delivered by truck. In reality, during the sugar processing season, the biomass fuel will be primarily bagasse from the sugar mill. The bagasse will be delivered directly to the boilers, bypassing the handling system (except for a small overfeed amount). Although many of the transfer points will be enclosed, in general no credit was taken for such control.

Also included in Table 2-13 are the dust collector baghouse at the boiler house, the ash silo bin vent filter, and the carbon silo bin vent filter. These sources will emit particulate matter.

2.6 DISTILLATE FUEL STORAGE TANK EMISSIONS

Annual throughput amounts for the storage tank were developed based on the maximum annual No. 2 fuel oil usage for the boilers of 19.5 million gal/yr (refer to Table 2-2). Physical tank parameters, maximum throughput amounts, and estimated storage tank emissions are presented in Appendix D. VOC emissions were estimated using the TANKS (Version 2.0) computer program.

This program was developed by the American Petroleum Institute (API) and uses equations from EPA's Compilation of Air Pollutant Emission Factors (AP-42), Section 12, to estimate breathing and working losses from fixed cone roof storage tanks. Printed output from the TANKS program is provided in Attachment D. As presented, estimated VOC emissions are 0.11 TPY from the storage tank.

2.7 COMPLIANCE DEMONSTRATION

Okeelanta Power will demonstrate compliance with the maximum heat input limits for the facility by monitoring fuel input rates and fuel characteristics on a periodic basis. In addition, 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.

Continuous stack gas monitoring for opacity, NO_x, SO_2, CO, and CO_2 are installed on each boiler's flue gas stream. An oxygen monitor is used to continuously maintain the air/fuel ratio at an optimum.

In addition, per the zoning conditions recommended by Palm Beach County and agreed to by Okeelanta Power, stack testing will be performed for PM, NO_x, CO, SO_2, 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).

The heat input to the boilers will be measured by the continuous measurement of the fuel input to each boiler. Conveyor belts supplying fuel to the boilers will be fitted with belt scales which will measure the weight of biomass, coal, and TDF and provide an integrated daily total. Separate metering devices will be provided for biomass, coal, and TDF so that the weight of these fuels can be determined even when burning a combination of fuels. Utilizing fuel quality data (i.e., heating value), the heat input to each boiler will be calculated.

Okeelanta Power has determined that the most accurate, cost-effective method to determine SO_2 emissions from the facility is to install a continuous SO_2 emission monitor (that meets EPA reference method specifications). This will allow the direct determination of hourly SO_2

emissions on a continuous basis for determining compliance with the 24-hour average and annual average emission limits for the facility.

Okeelanta Power has designed and implemented a management and testing program for the wood waste and other biomass materials delivered to the facility for fuel. The program is designed 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. This program has been submitted to the FDEP's Bureau of Air Regulation for review and approval. The program provides for the routine inspection and/or testing of the fuel at the originating wood yard sites as well as at the cogeneration site, to ensure that the quantities of painted or chemically treated wood in the fuel are minimized. Okeelanta Power will perform a daily visual inspection of any wood waste or similar vegetative matter that has been delivered to the facility for use as fuel. Any shipment observed to contain prohibited materials will not be accepted unless such materials can be readily segregated and removed from the wood waste and vegetative matter. Okeelanta Power will not use any delivered fuel that contains an amount of treated or painted wood which would cause the wood waste to contain more than 70.7 parts per million (ppm) arsenic, 83.3 ppm chromium, or 62.8 ppm copper based on analysis of a composite sample of the fuel.

Table 2-1. Design Fuel Specifications[a] for the Okeelanta Power Cogeneration 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	0.009	0.009	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

[a] Represents average fuel characteristics.

Sources: Okeelanta Corp., 1992.
Combustion Engineering, 1981.
Waste Recovery, Inc., 1986.

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	
			Maximum Short-Term (per boiler)				
Biomass: Bagasse	715	MMBtu/hr	68	486	MMBtu/hr	168,235	lb/hr^a
Wood Waste	715	MMBtu/hr	68	486	MMBtu/hr	130,000	lb/hr^b
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
			Annual Average (total all three boilers)				
NORMAL OPERATIONS							
Biomass	1.150E+13	Btu/yr	68	7.820E+12	Btu/yr	1,352,941	TPY^a
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		
24.9% OIL FIRING							
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		
15.2% COAL FIRING							
Biomass	9.395E+12	Btu/yr	68	6.389E+12	Btu/yr	1,105,294	TPY
No. 2 Oil	0	Btu/yr	85	0	Btu/yr	0	gal/yr
Coal	1.684E+12	Btu/yr	85	1.431E+12	Btu/yr	70,167	TPY
Tire-Derived Fuel	0	Btu/yr	68	0	Btu/yr	0	TPY
TOTAL	1.108E+13	Btu/yr		7.820E+12	Btu/yr		
22% TIRE-DERIVED FUEL FIRING (9.1% TDF, weight basis)							
Biomass	8.970E+12	Btu/yr	68	6.100E+12	Btu/yr	815,455	TPY^b
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	2.530E+12	Btu/yr	68	1.720E+12	Btu/yr	81,613	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.

^a Based on heating value for bagasse of 4,250 Btu/lb, wet basis.
^b Based on heating value for wood waste of 5,500 Btu/lb.

Table 2-3. Stack Parameters for Okeelanta Power Cogeneration 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)	8.0	8.0	8.0	8.0	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)	81.6 -108.1	46.4 - 49.7	70.0 - 75.3	81.6 - 108.1	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. Federal NSPS for Electric Utility Steam-Generating Units Applicable to the Okeelanta Power Cogeneration Facility

Pollutant	Emission Limitation
Particulate Matter	Liquid fuel--0.03 lb/10^6 Btu Solid fuel--0.03 lb/10^6 Btu
Visible Emissions	20% opacity (6-minute average), except up to 27% opacity is allowed for one 6-minute period per hour
Sulfur Dioxide[a]	Resource Recovery Units--1.20 lb/10^6 Btu
Nitrogen Oxides[a]	Fuel Oil--0.30 lb/10^6 Btu Solid fuels: Bituminous coal--0.60 lb/10^6 Btu All other fuels--0.60 lb/10^6 Btu

Note: Emission limits for PM, NO_x, and SO_2 do not apply during periods of startup, shutdown, or malfunction.

[a] Compliance determined on a 30-day, rolling average basis.

Source: 40 CFR 60, Subpart Da.

Table 2-5. Current and Proposed Emission Limits for the Okeelanta Power Facility

Pollutant	Emission Limit[d] (per boiler)								Total All Three Boilers[e] (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[a,b]	—	—	—	1.2[a]	—	0.8[a]	—	1,154.3[f]
Woodwaste	0.05[c]								
Nitrogen Oxides									
Annual Average	0.15[a]	107.3[a]	0.15[a]	73.5[a]	0.17[a]	83.3[a]	0.15[a]	51.0[a]	862.5
Carbon Monoxide									
8-Hour Average	0.35	250.3	0.2	98.0	0.2	98.0	0.35	119.0	2,012.5
Volatile Organic Compounds	0.06	42.9	0.03	14.7	0.03	14.7	0.06	20.4	345.0
Lead	2.5×10^{-5}	0.0179	8.9×10^{-7}	0.00044	6.4×10^{-5}	0.031	4.2×10^{-5}	0.0143	0.17
Mercury									
Bagasse	6.3×10^{-6} [b]	0.0045[b]	2.4×10^{-6}	0.00118	8.4×10^{-6}	0.0041	6.5×10^{-6}	0.0022	0.0300
Wood Waste	0.29×10^{-6} [c]	0.00021[c]							
Beryllium	—	—	3.5×10^{-7}	0.00017	5.9×10^{-6}	0.0029	4.5×10^{-7}	1.5×10^{-4}	0.0052
Fluorides	—	—	6.3×10^{-6}	0.0031	0.024	11.8	6.5×10^{-4}	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

[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 percent of total heat input on a calendar quarter basis, coal to 70,167 tons and TDF to 81,613 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.
[f] Compliance based on a 12-month rolling average.

Table 2-6 . Summary of Tire Derived Fuel Analysis and Potential Emissions

Parameter	Reference 1 Analysis	Reference 1 lb/MMBtu	Reference 2 Analysis	Reference 2 lb/MMBtu	Highest Uncontrolled Emission Rate (lb/MMBtu)	ESP Control Eff. (%)	Highest Controlled Emission Rate (lb/MMBtu)	
	(% by wt.)		(% by wt.)					
Carbon	83.87	--	--	--	--	--	--	
Hydrogen	7.09	--	--	--	--	--	--	
Oxygen	2.17	--	--	--	--	--	--	
Nitrogen	0.24	--	--	--	--	--	--	
Sulfur	1.23	0.79	--	--	1.59 (SO2)	--	1.2	24-hr^b
						--	0.80	Annual ^b
Ash	4.78	--	--	--	--	--	--	
Moisture	0.62	--	--	--	--	--	--	
Heating Value (Btu/lb)	15,500	--	15,500	--	--	--	--	
	(ppm)		(ppm)					
Aluminum			900	5.81E-02	5.81E-02	99	5.81E-04	
Antimony	--	--	0.01	6.45E-07	6.45E-07	99	6.45E-09	
Arsenic	--	--	7	4.52E-04	4.52E-04	99	4.52E-06	
Barium	--	--	12	7.74E-04	7.74E-04	99	7.74E-06	
Beryllium	--	--	0.7	4.52E-05	4.52E-05	99	4.52E-07	
Cadmium	6	3.87E-04	6	3.87E-04	3.87E-04	99	3.87E-06	
Chromium	97	6.26E-03	100	6.45E-03	6.45E-03	99	6.45E-05	
Chlorine	1,490	9.61E-02	--	--	9.61E-02	0	9.61E-02	a
Cobalt	--	--	500	3.23E-02	3.23E-02	99	3.23E-04	
Copper	--	--	950	6.13E-02	6.13E-02	99	6.13E-04	
Fluoride	10	6.45E-04	--	--	6.45E-04	0	6.45E-04	
Lead	65	4.19E-03	--	--	4.19E-03	99	4.19E-05	
Manganese	--	--	1,000	6.45E-02	6.45E-02	99	6.45E-04	
Mercury	--	--	0.1	6.45E-06	6.45E-06	0	6.45E-06	
Molybdenum	--	--	70	4.52E-03	4.52E-03	99	4.52E-05	
Nickel	--	--	60	3.87E-03	3.87E-03	99	3.87E-05	
Selenium	--	--	105	6.77E-03	6.77E-03	99	6.77E-05	
Tin	--	--	0.01	6.45E-07	6.45E-07	99	6.45E-09	
Uranium	--	--	0.04	2.58E-06	2.58E-06	99	2.58E-08	
Vanadium (ppm)	--	--	1	6.45E-05	6.45E-05	99	6.45E-07	
Zinc (ppm)	15,200	9.81E-01	13,000	8.39E-01	9.81E-01	99	9.81E-03	

a Assumed to be emitted as hydrogen chloride (HCl).

b Based on suflur capture achievable due to alkaline fly ash.

References:

1. Waste Recovery, Inc. Bulletin 20.20.1C Dec. 1986.
2. Burning Tires for Fuel and Tire Pyrolysis: Air Implications. EPA-450/3-91-024.

Table 2-7. Maximum Hourly Emissions for Okeelanta Power 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
	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)	(lb/hr)	(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	2.5E-05	715	0.0179	8.9E-07	490	0.00044	6.4E-05	490	0.031	4.2E-05	340	0.0143	0.0237	0.0314
Mercury - Bagasse	6.3E-06	715	0.0045	2.4E-06	490	0.00118	8.4E-06	490	0.0041	6.5E-06	340	0.0022	0.0046	0.0046
- Wood Waste	2.9E-07	715	2.07E-04											
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
Total reduced sulfur	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Asbestos	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Vinyl Chloride	–	–	–	–	–	–	–	–	–	–	–	–	–	–

^a 30-day rolling average.
^b 8-hour average.
^c 24-hour average.
^d Weight basis: 340 MMBtu/hr TDF and 375 MMBtu/hr biomass.

Table 2-8. Maximum Annual Emissions for Okeelanta Power Cogeneration Facility (total all boilers)

Regulated Pollutant	Biomass Emission Factor (lb/MMBtu)	Biomass Activity Factor (E12 Btu/yr)	Biomass Annual Emissions (TPY)	Alternate Fuel Emission Factor (lb/MMBtu)	Alternate Fuel Activity Factor (E12 Btu/yr)	Alternate Fuel Annual Emissions (TPY)	Total Annual Emissions (TPY)
100% Biomass							
Particulate (TSP)	0.03	11.500	172.50	--	--	--	172.50 a
Particulate (PM10)	0.03	11.500	172.50	--	--	--	172.50 a
Sulfur dioxide - Bagasse	0.02	7.705 b	77.05	--	--	--	171.93
- Wood Waste	0.05	3.795 c	94.88				
Nitrogen oxides	0.15	11.500	862.50	--	--	--	862.50 a
Carbon monoxide	0.35	11.500	2,012.50	--	--	--	2,012.50 a
VOC	0.06	11.500	345.00	--	--	--	345.00 a
Lead	2.5E-05	11.500	0.144	--	--	--	0.144
Mercury - Bagasse	6.30E-06	7.705 b	0.0243	--	--	--	0.0248
- Wood Waste	2.90E-07	3.795 c	0.00055				
Beryllium	--	--	--	--	--	--	--
Fluorides	--	--	--	--	--	--	--
Sulfuric acid mist	0.0006	11.500	3.45	--	--	--	3.45
75.1% Biomass / 24.9% Fuel Oil							
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	5.447 b	54.47	0.05	2.696	67.40	188.94
- Wood Waste	0.05	2.683 c	67.07				
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	2.5E-05	8.130	0.102	8.9E-07	2.696	0.0012	0.103
Mercury - Bagasse	6.30E-06	5.447 b	0.0172	2.4E-06	2.696	0.0032	0.021
- Wood Waste	2.90E-07	2.683 c	0.00039				
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
84.8% Biomass / 15.2% Coal							
Particulate (TSP)	0.03	9.395	140.93	0.03	1.684	25.26	166.19
Particulate (PM10)	0.03	9.395	140.93	0.03	1.684	25.26	166.19
Sulfur dioxide - Bagasse	0.02	6.295 b	62.95	1.2	1.684	1,010.40	1,150.86 a
- Wood Waste	0.05	3.100 c	77.51				
Nitrogen oxides	0.15	9.395	704.63	0.17	1.684	143.14	847.77
Carbon monoxide	0.35	9.395	1,644.13	0.2	1.684	168.40	1,812.53
VOC	0.06	9.395	281.85	0.03	1.684	25.26	307.11
Lead	2.5E-05	9.395	0.117	6.4E-05	1.684	0.0539	0.1713 a
Mercury - Bagasse	6.30E-06	6.295 b	0.0198	8.4E-06	1.684	0.0071	0.0274
- Wood Waste	2.90E-07	3.100 c	0.00045				
Beryllium	--	--	--	5.9E-06	1.684	0.0050	0.0050 a
Fluorides	--	--	--	0.024	1.684	20.21	20.21 a
Sulfuric acid mist	0.0006	9.395	2.82	0.036	1.684	30.31	33.13 a
78% Biomass / 22% Tire-Derived Fuel (9.1% TDF, weight basis)							
Particulate (TSP)	0.03	8.970	134.55	0.03	2.530	37.95	172.50 a
Particulate (PM10)	0.03	8.970	134.55	0.03	2.530	37.95	172.50 a
Sulfur dioxide - Bagasse	0.02	6.010 b	60.10	0.8	2.530	1,012.00	1,146.10
- Wood Waste	0.05	2.960 c	74.00				
Nitrogen oxides	0.15	8.970	672.75	0.15	2.530	189.75	862.50
Carbon monoxide	0.35	8.970	1,569.75	0.35	2.530	442.75	2,012.50 a
VOC	0.06	8.970	269.10	0.06	2.530	75.90	345.00 a
Lead	2.5E-05	8.970	0.112	4.2E-05	2.530	0.0531	0.1653
Mercury - Bagasse	6.30E-06	6.010 b	0.0189	6.5E-06	2.530	0.0082	0.0300 a,d
- Wood Waste	2.90E-07	2.960 c	0.00043				
Beryllium	--	--	--	4.5E-07	2.530	0.00057	0.00057
Fluorides	--	--	--	6.5E-04	2.530	0.82	0.8223
Sulfuric acid mist	0.0006	8.970	2.69	0.0069	2.530	8.73	11.42

a Denotes maximum annual emissions for any fuel scenario.
b Represents 67% of total heat input.
c Represents 33% of total heat input.
d Maximum annual mercury emissions will be limited to 0.0300 TPY. Refer to text for details.

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

Table 2-9. Maximum Hourly Emissions of Hazardous/ Toxic Air Pollutants for Okeelanta Power Cogeneration Facility (per boiler).

Hazardous Air Pollutant	Biomass			No. 2 Fuel Oil			Coal			Tire-Derived Fuel			25%TDF/ 75% Biomass (a)	Max. Hourly Emissions For Any Fuel per Boiler	Max. Hourly Total All Three Boilers
	Emission Factor (lb/MMBtu)	Activity Factor (MMBtu/hr)	Hourly Emissions (lb/hr)	Emission Factor (lb/MMBtu)	Activity Factor (MMBtu/hr)	Hourly Emissions (lb/hr)	Emission Factor (lb/MMBtu)	Activity Factor (MMBtu/hr)	Hourly Emissions (lb/hr)	Emission Factor (lb/MMBtu)	Activity Factor (MMBTU/HR)	Hourly Emissions (lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)
Hazardous Air Pollutants															
Acetaldehyde	7.8E-04	715	0.56	--	490	--	--	490	--	--	340	--	0.29	0.558	1.673
Acetophenone	3.7E-06	715	0.00	--	490	--	--	490	--	--	340	--	0.00139	0.00265	0.00794
Acrolein	6.5E-05	715	0.0465	--	490	--	--	490	--	--	340	--	0.024	0.0465	0.139
Antimony	UD	715	--	2.4E-07	490	1.2E-04	3.49E-05	490	0.017	6.45E-09	340	2.2E-06	2.19E-06	0.0171	0.051
Arsenic	1.66E-04	715	0.1187	4.2E-06	490	2.1E-05	5.4E-06	490	0.0026	4.52E-06	340	1.5E-03	0.064	0.119	0.358
Benzene	1.3E-03	715	0.9	--	490	--	--	490	--	--	340	--	0.49	0.930	2.789
Beryllium	--	--	--	3.5E-07	490	1.7E-04	5.9E-06	490	2.9E-03	4.50E-07	340	1.5E-04	0.00015	0.00289	0.00867
Cadmium	8.4E-07	715	6.01E-04	1.1E-07	490	5.4E-05	4.3E-07	490	2.1E-04	3.87E-06	340	1.3E-03	0.00183	0.00183	0.00489
Carbon Disulfide	1.3E-04	715	0.0930	--	490	--	--	490	--	--	340	--	0.049	0.093	0.279
Carbon Tetrachloride	6.0E-06	715	4.3E-03	--	490	--	--	490	--	--	340	--	0.0023	0.0043	0.0129
Chlorine	9.2E-04	715	6.8E-01	--	490	--	--	490	--	--	340		0.35	0.658	1.973
Chloroform	4.7E-05	715	0.034	--	490	--	--	490	--	--	340	--	0.018	0.034	0.101
Chromium	1.57E-04	715	0.112	6.7E-07	490	3.3E-04	1.66E-05	490	0.0081	6.45E-06	340	0.0022	0.061	0.112	0.337
Chromium +6	3.14E-05	715	0.022	1.3E-07	490	6.4E-05	3.1E-06	490	0.0015	--	340	--	0.012	0.0225	0.0674
Cobalt	1.5E-07	715	1.07E-04	1.2E-05	490	0.0059	7.2E-05	490	0.035	3.23E-04	340	0.110	0.11	0.1099	0.3296
Cumene	1.8E-05	715	0.0129	--	490	--	--	490	--	--	340	--	0.007	0.0129	0.0386
Di - n - butyl Phthalate	5.8E-05	715	0.041	--	490	--	--	490	--	--	340	--	0.022	0.0415	0.124
Ethyl Benzene	3.9E-06	715	0.0028	--	490	--	--	490	--	--	340	--	0.0015	0.0028	0.00837
Formaldehyde	1.3E-03	715	0.93	4.05E-04	490	0.20	2.2E-04	490	0.11	4.05E-04	340	0.138	0.63	0.93	2.79
n Hexane	5.5E-04	715	0.393	--	490	--	--	490	--	--	340	--	0.21	0.39	1.18
Hydrogen Chloride	5.8E-04	715	0.40	6.37E-04	490	0.31	7.9E-02	490	38.71	9.61E-02	340	32.67	32.88	38.71	116.13
Lead	2.5E-05	715	0.0179	8.9E-07	490	0.0004	5.1E-06	490	0.0025	4.19E-05	340	0.0142	0.024	0.0238	0.071
Manganese	9.5E-05	715	0.068	1.4E-07	490	6.9E-05	3.1E-07	490	1.5E-04	6.45E-04	340	0.22	0.25	0.25	0.765
Mercury - Bagasse	6.3E-06	715	0.0045	2.4E-06	490	0.0012	8.4E-06	490	0.0041	6.45E-06	340	0.0022	0.0046	0.0046	0.0137
-Wood Waste	2.9E-07	715	2.07E-04												
Methanol	1.5E-03	715	1.0725	--	490	--	--	490	--	--	340	--	0.56	1.07	3.22
Methyl Ethyl Ketone	1.2E-05	715	0.0066	--	490	--	--	490	--	--	340	--	0.0045	0.0088	0.026
Methyl Isobutyl Ketone	8.8E-04	715	0.61	--	490	--	--	490	--	--	340	--	0.32	0.61	1.845
Methylene Chloride	1.5E-03	715	1.07	--	490	--	--	490	--	--	340	--	0.56	1.07	3.218
Napthalene	5.9E-04	715	0.42	--	490	--	--	490	--	--	340	--	0.22	0.42	1.266
Nickel	6.3E-06	715	0.005	1.70E-06	490	8.3E-04	1.0E-05	490	0.0049	3.67E-05	340	0.0132	0.018	0.0155	0.0466
Phenols	4.1E-05	715	0.0293	--	490	--	--	490	--	--	340	--	0.015	0.029	0.088
Phosphorus	1.6E-06	715	0.0011	5.81E-05	490	0.028	8.6E-04	490	0.42	--	340	--	0.0006	0.42	1.264
POM (Polycyclic Org. Matte	2.2E-07	715	1.57E-04	8.4E-06	490	0.0041	--	490	--	--	340	--	0.0001	0.0041	0.0123
Selenium	3.8E-06	715	0.0027	3.6E-07	490	1.9E-04	5.34E-05	490	0.026	8.77E-05	340	0.023	0.024	0.026	0.0785
Styrene	1.5E-05	715	0.0107	--	490	--	--	490	--	--	340	--	0.0056	0.011	0.0322
2, 3, 7, 8 -TCDD (dioxin)	6.0E-12	715	4.29E-09	--	490	--	--	490	--	--	340	--	2.25E-09	4.3E-09	1.29E-08
Toluene	9.0E-05	715	0.064	--	490	--	--	490	--	--	340	--	0.034	0.064	0.193
1, 1, 1 Trichloroethane	1.7E-04	715	0.12	--	490	--	--	490	--	--	340	--	0.064	0.122	0.365
Trichloroethylene	7.6E-06	715	0.005	--	490	--	--	490	--	--	340	--	0.0029	0.0054	0.0163
m&p Xylene	7.8E-06	715	0.0056	--	490	--	--	490	--	--	340	--	0.0029	0.0056	0.0167
o Xylene	2.6E-06	715	0.0019	--	490	--	--	490	--	--	340	--	0.0010	0.00186	0.00558
Total HAPs =			7.89			0.55			39.34			33.20	37.34		
112 (r) (non-HAPs)															
Ammonia	1.48E-02	715	10.58	1.48E-02	490	7.25	4.8E-02	490	23.52	4.80E-02	340	16.32	21.87	23.52	70.56
Bromine	4.59E-05	715	0.033	6.97E-07	490	3.4E-04	7.9E-04	490	0.39	--	340	--	0.017	0.39	1.16
Fluorine (as fluorides)	--	--	--	6.27E-06	490	0.0031	0.024	490	11.76	8.45E-04	340	0.22	0.22	11.76	35.28
Sulfuric acid	0.003	715	2.15	1.50E-03	490	0.74	0.036	490	17.64	0.01	340	3.40	4.53	17.64	52.92
Other Air Toxics															
Acetone	3.60E-04	715	0.2717	--	490	--	--	490	--	--	340	--	0.14	0.272	0.815
Barium	5.20E-06	715	0.0037	6.69E-07	490	3.3E-04	7.44E-05	490	0.036	7.74E-06	340	0.0026	0.005	0.036	0.109
Benzo(a)anthracene	7.53E-07	715	5.38E-04	--	490	--	--	490	--	--	340	--	0.00028	0.00054	0.0016
Benzo(a)pyrene	3.53E-06	715	2.52E-05	--	490	--	--	490	--	--	340	--	1.32E-05	2.52E-05	7.57E-05
Chrysene	3.53E-05	715	0.025	--	490	--	--	490	--	--	340	--	0.013	0.025	0.076
Copper	1.48E-04	715	0.11	4.20E-05	490	0.021	--	490	--	6.13E-04	340	0.21	0.26	0.26	0.792
Indium	1.27E-04	715	0.091	--	490	--	--	490	--	--	340	--	0.046	0.091	0.272
Iodine	2.12E-06	715	0.0015	--	490	--	--	490	--	--	340	--	0.0008	0.0015	0.005
Isopropanol	9.20E-03	715	6.58	--	490	--	--	490	--	--	340	--	3.45	6.58	19.73
Molybdenum	2.24E-07	715	1.60E-04	4.68E-07	490	2.4E-04	8.83E-06	490	0.0043	4.52E-05	340	0.0154	0.015	0.0155	0.048
PAH	5.90E-10	715	4.22E-07	--	490	--	--	490	--	--	340	--	2.21E-07	4.22E-07	1.27E-06
Silver	1.40E-06	715	0.0010	--	490	--	--	490	--	--	340	--	0.0005	0.0010	0.0030
Thallium	UD	715	--	--	490	--	--	490	--	--	340	--	--	--	--
Tin	3.65E-08	715	2.61E-05	3.30E-06	490	0.0016	8.83E-06	490	0.0043	8.45E-09	340	2.2E-06	1.59E-05	0.0043	0.013
Tungsten	1.29E-08	715	9.22E-06	--	490	--	--	490	--	--	340	--	4.64E-06	9.2E-06	2.77E-05
Uranium	--	715	--	--	490	--	--	490	--	2.58E-08	340	8.8E-06	8.77E-06	8.8E-06	2.83E-05
Vanadium	1.41E-07	715	1.01E-04	--	490	--	--	490	--	8.45E-07	340	2.2E-04	2.72E-04	2.7E-04	8.17E-04
Yttrium	6.59E-08	715	4.71E-05	--	490	--	--	490	--	--	340	--	2.47E-05	4.7E-05	1.41E-04
Zinc	4.24E-04	715	0.30	6.69E-06	490	0.0033	3.49E-04	490	0.17	9.81E-03	340	3.34	3.49	3.49	10.48
Zirconium	4.12E-07	715	2.95E-04	--	490	--	--	490	--	--	340	--	0.0002	2.9E-04	8.84E-04

Note: UD = undetectable levels in gas stream.
(a) Weight basis: 47.6% TDF on a heat input basis (340 MMBtu/hr).

Table 2-10. Maximum Annual Emissions of Harzardous/Toxic Air Pollutants for Okeelanta Power (total all boilers)

Pollutant	Biomass Emission Factor (lb/MMBtu)	Biomass Activity Factor (E12 Btu/yr)	Biomass Annual Emissions (TPY)	Alternate Fuel Emission Factor (lb/MMBtu)	Alternate Fuel Activity Factor (E12 Btu/yr)	Alternate Fuel Annual Emissions (TPY)	Annual Emissions (TPY)
			100% Biomass				
Hazardous Air Pollutants							
Acetaldehyde	7.80E-04	11.500	4.49	--	--	--	4.49 a
Acetophenone	3.70E-06	11.500	0.021	--	--	--	0.021 a
Acrolein	6.50E-05	11.500	0.37	--	--	--	0.37 a
Antimony	UD	11.500	--	--	--	--	--
Arsenic	5.65E-05	11.500	0.32	--	--	--	0.32 a
Benzene	1.30E-03	11.500	7.48	--	--	--	7.48 a
Beryllium	--	11.500	--	--	--	--	--
Cadmium	8.40E-07	11.500	0.0048	--	--	--	0.0048
Carbon Disulfide	1.30E-04	11.500	0.75	--	--	--	0.75 a
Carbon Tetrachloride	6.00E-06	11.500	0.035	--	--	--	0.035 a
Chlorine	9.20E-04	11.500	5.29	--	--	--	5.29 a
Chloroform	4.70E-05	11.500	0.27	--	--	--	0.27 a
Chromium	5.55E-05	11.500	0.32	--	--	--	0.32 a
Chromium +6	1.11E-05	11.500	0.064	--	--	--	0.064 a
Cobalt	1.50E-07	11.500	8.6E-04	--	--	--	8.6E-04
Cumene	1.80E-05	11.500	0.10	--	--	--	0.10 a
Di - n - butyl Phthalate	5.80E-05	11.500	0.33	--	--	--	0.33 a
Ethyl Benzene	3.90E-06	11.500	0.022	--	--	--	0.022 a
Formaldehyde	1.30E-03	11.500	7.48	--	--	--	7.48 a
n Hexane	5.50E-04	11.500	3.16	--	--	--	3.16 a
Hydrogen Chloride	5.60E-04	11.500	3.22	--	--	--	3.22
Lead	2.50E-05	11.500	0.144	--	--	--	0.144
Manganese	9.50E-05	11.500	0.55	--	--	--	0.55
Mercury - Bagasse	6.30E-06	11.500	0.036	--	--	--	0.036
-Wood Waste	2.90E-07	11.500	0.0017	--	--	--	0.0017 a
Methanol	1.50E-03	11.500	8.63	--	--	--	8.63 a
Methyl Ethyl Ketone	1.20E-05	11.500	0.069	--	--	--	0.069 a
Methyl Isobutyl Ketone	8.60E-04	11.500	4.95	--	--	--	4.95 a
Methylene Chloride	1.50E-03	11.500	8.63	--	--	--	8.63 a
Napthalene	5.90E-04	11.500	3.39	--	--	--	3.39 a
Nickel	6.30E-06	11.500	0.036	--	--	--	0.036
Phenols	4.10E-05	11.500	0.24	--	--	--	0.24 a
Phosphorus	1.60E-06	11.500	0.0092	--	--	--	0.0092
POM (Polycyclic Org. Matter)	2.20E-07	11.500	0.0013	--	--	--	0.0013
Selenium	3.80E-06	11.500	0.022	--	--	--	0.022
Styrene	1.50E-05	11.500	0.086	--	--	--	0.086 a
2, 3, 7, 8 -TCDD (dioxin)	6.00E-12	11.500	3.5E-08	--	--	--	3.5E-08 a
Toluene	9.00E-05	11.500	0.52	--	--	--	0.52 a
1, 1, 1 Trichloroethane	1.70E-04	11.500	0.98	--	--	--	0.98 a
Trichloroethylene	7.60E-06	11.500	0.044	--	--	--	0.044 a
m&p Xylene	7.80E-06	11.500	0.045	--	--	--	0.045 a
o Xylene	2.60E-06	11.500	0.015	--	--	--	0.015 a
Total HAPs							62.101
112 (r) (non-HAPs)							
Ammonia	1.48E-02	11.500	85.10	--	--	--	85.10
Bromine	4.59E-05	11.500	0.26	--	--	--	0.26
Flourine	--	11.500	--	--	--	--	--
Other Air Toxics							
Acetone	3.80E-04	11.500	2.19	--	--	--	2.19 a
Barium	5.20E-06	11.500	0.030	--	--	--	0.030
Benzo(a)anthracene	7.53E-07	11.500	0.0043	--	--	--	0.0043 a
Benzo(a)pyrene	3.53E-08	11.500	2.03E-04	--	--	--	2.03E-04 a
Chrysene	3.53E-05	11.500	0.20	--	--	--	0.20 a
Copper	7.24E-05	11.500	0.42	--	--	--	0.42
Indium	1.27E-04	11.500	0.73	--	--	--	0.73 a
Iodine	2.12E-06	11.500	0.012	--	--	--	0.012 a
Isopropanol	9.20E-03	11.500	52.90	--	--	--	52.90 a
Molybdenum	2.24E-07	11.500	0.0013	--	--	--	0.0013
PAH	5.90E-10	11.500	3.39E-06	--	--	--	3.39E-06 a
Silver	1.40E-06	11.500	0.0081	--	--	--	0.0081 a
Thallium	UD	11.500	--	--	--	--	--a
Tin	3.65E-08	11.500	2.1E-04	--	--	--	2.1E-04
Tungsten	1.29E-08	11.500	7.4E-05	--	--	--	7.4E-05 a
Uranium	--	11.500	--	--	--	--	--
Vanadium	1.41E-07	11.500	8.1E-04	--	--	--	8.1E-04
Yttrium	6.59E-08	11.500	3.8E-04	--	--	--	3.8E-04 a
Zinc	4.24E-04	11.500	2.44	--	--	--	2.44
Zirconium	4.12E-07	11.500	0.0024	--	--	--	0.0024 a

Table 2-10. Maximum Annual Emissions of Harzardous/Toxic Air Pollutants for Okeelanta Power (total all boilers)

Pollutant	Biomass Emission Factor (lb/MMBtu)	Biomass Activity Factor (E12 Btu/yr)	Biomass Annual Emissions (TPY)	Alternate Fuel Emission Factor (lb/MMBtu)	Alternate Fuel Activity Factor (E12 Btu/yr)	Alternate Fuel Annual Emissions (TPY)	Annual Emissions (TPY)
			75.1% Biomass / 24.9% Fuel Oil				
Hazardous Air Pollutants							
Acetaldehyde	7.80E-04	8.637	3.37	--	2.864	--	3.37
Acetophenone	3.70E-06	8.637	0.016	--	2.864	--	0.016
Acrolein	6.50E-05	8.637	0.28	--	2.864	--	0.28
Antimony	UD	8.637	--	2.40E-07	2.864	0.0003	0.0003
Arsenic	5.65E-05	8.637	0.24	4.20E-08	2.864	6.0E-05	0.24
Benzene	1.30E-03	8.637	5.61	--	2.864	--	5.61
Beryllium	--	8.637	--	3.50E-07	2.864	5.0E-04	0.0005
Cadmium	8.40E-07	8.637	0.0036	1.10E-07	2.864	1.6E-04	0.0038
Carbon Disulfide	1.30E-04	8.637	0.56	--	2.864	--	0.56
Carbon Tetrachloride	6.00E-06	8.637	0.026	--	2.864	--	0.026
Chlorine	9.20E-04	8.637	3.97	--	2.864	--	3.97
Chloroform	4.70E-05	8.637	0.20	--	2.864	--	0.20
Chromium	5.55E-05	8.637	0.24	6.70E-07	2.864	0.0010	0.24
Chromium +6	1.11E-05	8.637	0.048	1.30E-07	2.864	1.9E-04	0.048
Cobalt	1.50E-07	8.637	6.5E-04	1.20E-05	2.864	0.017	0.018
Cumene	1.80E-05	8.637	0.078	--	2.864	--	0.078
Di - n - butyl Phthalate	5.80E-05	8.637	0.25	--	2.864	--	0.25
Ethyl Benzene	3.90E-06	8.637	0.017	--	2.864	--	0.017
Formaldehyde	1.30E-03	8.637	5.61	4.05E-04	2.864	0.58	6.19
n Hexane	5.50E-04	8.637	2.38	--	2.864	--	2.38
Hydrogen Chloride	5.60E-04	8.637	2.42	6.37E-04	2.864	0.91	3.33
Lead	2.50E-05	8.637	0.108	8.90E-07	2.864	0.0013	0.109
Manganese	9.50E-05	8.637	0.41	1.40E-07	2.864	2.0E-04	0.41
Mercury - Bagasse	6.30E-06	8.637	0.027	2.40E-06	2.864	0.0034	0.031
-Wood Waste	2.90E-07	8.637	0.0013	--	2.864	--	0.0013
Methanol	1.50E-03	8.637	6.48	--	2.864	--	6.48
Methyl Ethyl Ketone	1.20E-05	8.637	0.052	--	2.864	--	0.052
Methyl Isobutyl Ketone	8.60E-04	8.637	3.71	--	2.864	--	3.71
Methylene Chloride	1.50E-03	8.637	6.48	--	2.864	--	6.48
Napthalene	5.90E-04	8.637	2.55	--	2.864	--	2.55
Nickel	6.30E-06	8.637	0.027	1.70E-06	2.864	0.0024	0.030
Phenols	4.10E-05	8.637	0.18	--	2.864	--	0.18
Phosphorus	1.60E-06	8.637	0.0069	5.81E-05	2.864	0.083	0.090
POM (Polycyclic Org. Matter)	2.20E-07	8.637	0.0010	8.40E-06	2.864	0.012	0.013 a
Selenium	3.80E-06	8.637	0.016	3.80E-07	2.864	5.4E-04	0.017
Styrene	1.50E-05	8.637	0.065	--	2.864	--	0.065
2, 3, 7, 8 -TCDD (dioxin)	6.00E-12	8.637	2.6E-08	--	2.864	--	2.6E-08
Toluene	9.00E-05	8.637	0.39	--	2.864	--	0.39
1, 1, 1 Trichloroethane	1.70E-04	8.637	0.73	--	2.864	--	0.73
Trichloroethylene	7.60E-06	8.637	0.033	--	2.864	--	0.033
m & p Xylene	7.80E-06	8.637	0.034	--	2.864	--	0.034
o Xylene	2.60E-06	8.637	0.011	--	2.864	--	0.011
Total HAPs							48.252
112 (r) (non-HAPs)							
Ammonia	1.48E-02	8.637	63.91	1.48E-02	2.864	21.19	85.10
Bromine	4.59E-05	8.637	0.20	6.97E-07	2.864	0.0010	0.20
Flourine	--	8.637	--	6.27E-06	2.864	0.0090	0.0090
Other Air Toxics							
Acetone	3.80E-04	8.637	1.64	--	2.864	--	1.64
Barium	5.20E-06	8.637	0.02	6.69E-07	2.864	0.0010	0.02
Benzo(a)anthracene	7.53E-07	8.637	0.0033	--	2.864	--	0.0033
Benzo(a)pyrene	3.53E-08	8.637	1.52E-04	--	2.864	--	1.52E-04
Chrysene	3.53E-05	8.637	0.15	--	2.864	--	0.15
Copper	7.24E-05	8.637	0.31	4.20E-05	2.864	0.060	0.37
Indium	1.27E-04	8.637	0.55	--	2.864	--	0.55
Iodine	2.12E-06	8.637	0.0092	--	2.864	--	0.0092
Isopropanol	9.20E-03	8.637	39.73	--	2.864	--	39.73
Molybdenum	2.24E-07	8.637	0.0010	4.88E-07	2.864	7.0E-04	0.0017
PAH	5.90E-10	8.637	2.55E-06	--	2.864	--	2.55E-06
Silver	1.40E-06	8.637	0.0060	--	2.864	--	0.0060
Thallium	UD	8.637	--	--	2.864	--	--a
Tin	3.65E-08	8.637	1.6E-04	3.30E-06	2.864	0.0047	0.0049
Tungsten	1.29E-08	8.637	5.57E-05	--	2.864	--	5.57E-05
Uranium	--	8.637	--	--	2.864	--	--
Vanadium	1.41E-07	8.637	6.09E-04	--	2.864	--	6.09E-04
Yttrium	6.59E-08	8.637	2.85E-04	--	2.864	--	2.85E-04
Zinc	4.24E-04	8.637	1.83	6.69E-06	2.864	0.010	1.84
Zirconium	4.12E-07	8.637	0.0018	--	2.864	--	0.0018

Table 2-10. Maximum Annual Emissions of Harzardous/Toxic Air Pollutants for Okeelanta Power (total all boilers)

Pollutant	Biomass Emission Factor (lb/MMBtu)	Biomass Activity Factor (E12 Btu/yr)	Biomass Annual Emissions (TPY)	Alternate Fuel Emission Factor (lb/MMBtu)	Alternate Fuel Activity Factor (E12 Btu/yr)	Alternate Fuel Annual Emissions (TPY)	Annual Emissions (TPY)
			84.8% Biomass / 15.2% Coal				
Hazardous Air Pollutants							
Acetaldehyde	7.80E-04	9.395	3.66	--	1.684	--	3.66
Acetophenone	3.70E-06	9.395	0.017	--	1.684	--	0.017
Acrolein	6.50E-05	9.395	0.31	--	1.684	--	0.31
Antimony	UD	9.395	--	3.49E-05	1.684	0.029	0.029 a
Arsenic	5.65E-05	9.395	0.27	5.40E-06	1.684	0.0045	0.27
Benzene	1.30E-03	9.395	6.11	--	1.684	--	6.11
Beryllium	--	9.395	--	3.50E-07	1.684	2.9E-04	2.9E-04
Cadmium	8.40E-07	9.395	0.0039	4.30E-07	1.684	3.6E-04	0.0043
Carbon Disulfide	1.30E-04	9.395	0.61	--	1.684	--	0.61
Carbon Tetrachloride	6.00E-06	9.395	0.028	--	1.684	--	0.028
Chlorine	9.20E-04	9.395	4.32	--	1.684	--	4.32
Chloroform	4.70E-05	9.395	0.22	--	1.684	--	0.22
Chromium	5.55E-05	9.395	0.26	1.66E-05	1.684	0.014	0.27
Chromium +6	1.11E-05	9.395	0.052	3.10E-06	1.684	0.0026	0.055
Cobalt	1.50E-07	9.395	7.0E-04	7.20E-05	1.684	0.061	0.061
Cumene	1.80E-05	9.395	0.085	--	1.684	--	0.085
Di - n - butyl Phthalate	5.80E-05	9.395	0.27	--	1.684	--	0.27
Ethyl Benzene	3.90E-06	9.395	0.018	--	1.684	--	0.018
Formaldehyde	1.30E-03	9.395	6.11	2.20E-04	1.684	0.19	6.29
n Hexane	5.50E-04	9.395	2.58	--	1.684	--	2.58
Hydrogen Chloride	5.60E-04	9.395	2.63	7.90E-02	1.684	66.52	69.15
Lead	2.50E-05	9.395	0.117	6.40E-05	1.684	0.054	0.171 a
Manganese	9.50E-05	9.395	0.45	3.10E-07	1.684	2.6E-04	0.45
Mercury - Bagasse	6.30E-06	9.395	0.030	8.40E-06	1.684	0.0071	0.037 a
-Wood Waste	2.90E-07	9.395	0.0014	--	1.684	--	0.0014
Methanol	1.50E-03	9.395	7.05	--	1.684	--	7.05
Methyl Ethyl Ketone	1.20E-05	9.395	0.056	--	1.684	--	0.056
Methyl Isobutyl Ketone	8.60E-04	9.395	4.04	--	1.684	--	4.04
Methylene Chloride	1.50E-03	9.395	7.05	--	1.684	--	7.05
Napthalene	5.90E-04	9.395	2.77	--	1.684	--	2.77
Nickel	6.30E-06	9.395	0.030	1.00E-05	1.684	0.0084	0.038
Phenols	4.10E-05	9.395	0.19	--	1.684	--	0.19
Phosphorus	1.60E-06	9.395	0.0075	8.60E-04	1.684	0.72	0.732 a
POM (Polycyclic Org. Matter)	2.20E-07	9.395	0.0010	--	1.684	--	0.0010
Selenium	3.80E-06	9.395	0.018	5.34E-05	1.684	0.045	0.063
Styrene	1.50E-05	9.395	0.070	--	1.684	--	0.070
2, 3, 7, 8 TCDD (dioxin)	6.00E-12	9.395	2.8E-08	--	1.684	--	2.8E-08
Toluene	9.00E-05	9.395	0.42	--	1.684	--	0.42
1, 1, 1 Trichloroethane	1.70E-04	9.395	0.80	--	1.684	--	0.80
Trichloroethylene	7.60E-06	9.395	0.036	--	1.684	--	0.036
m & p Xylene	7.80E-06	9.395	0.037	--	1.684	--	0.037
o Xylene	2.60E-06	9.395	0.012	--	1.684	--	0.012
Total HAPs							118.388
112 (r) (non-HAPs)							
Ammonia	1.48E-02	9.395	69.52	4.80E-02	1.684	40.42	109.9
Bromine	4.59E-05	9.395	0.22	7.90E-04	1.684	0.67	0.88 a
Flourine	--	9.395	--	2.40E-02	1.684	20.21	20.21 a
Other Air Toxics							
Acetone	3.80E-04	9.395	1.79	--	1.684	--	1.79
Barium	5.20E-06	9.395	0.024	7.44E-05	1.684	0.063	0.09 a
Benzo(a)anthracene	7.53E-07	9.395	0.0035	--	1.684	--	0.0035
Benzo(a)pyrene	3.53E-08	9.395	1.66E-04	--	1.684	--	1.66E-04
Chrysene	3.53E-05	9.395	0.17	--	1.684	--	0.17
Copper	7.24E-05	9.395	0.34	--	1.684	--	0.34
Indium	1.27E-04	9.395	0.60	--	1.684	--	0.60
Iodine	2.12E-06	9.395	0.010	--	1.684	--	0.010
Isopropanol	9.20E-03	9.395	43.22	--	1.684	--	43.22
Molybdenum	2.24E-07	9.395	0.0011	8.83E-06	1.684	0.0074	0.0085
PAH	5.90E-10	9.395	2.77E-06	--	1.684	--	2.77E-06
Silver	1.40E-06	9.395	0.0066	--	1.684	--	0.0066
Thallium	UD	9.395	--	--	1.684	--	-- a
Tin	3.65E-08	9.395	1.7E-04	8.83E-06	1.684	0.0074	0.0076 a
Tungsten	1.29E-08	9.395	6.1E-05	--	1.684	--	6.06E-05
Uranium	--	9.395	--	--	1.684	--	--
Vanadium	1.41E-07	9.395	6.6E-04	--	1.684	--	6.62E-04
Yttrium	6.59E-08	9.395	3.1E-04	--	1.684	--	3.10E-04
Zinc	4.24E-04	9.395	1.99	3.49E-04	1.684	0.29	2.29
Zirconium	4.12E-07	9.395	0.0019	--	1.684	--	0.0019

Table 2-10. Maximum Annual Emissions of Harzardous/Toxic Air Pollutants for Okeelanta Power (total all boilers)

Pollutant	Biomass Emission Factor (lb/MMBtu)	Biomass Activity Factor (E12 Btu/yr)	Biomass Annual Emissions (TPY)	Alternate Fuel Emission Factor (lb/MMBtu)	Alternate Fuel Activity Factor (E12 Btu/yr)	Alternate Fuel Annual Emissions (TPY)	Annual Emissions (TPY)
			78% Biomass / 22% Tire-Derived Fuel (9.1% TDF, weight basis)				
Hazardous Air Pollutants							
Acetaldehyde	7.80E-04	9.200	3.59	--	2.300	--	3.59
Acetophenone	3.70E-06	9.200	0.017	--	2.300	--	0.017
Acrolein	6.50E-05	9.200	0.30	--	2.300	--	0.30
Antimony	UD	9.200	--	6.45E-09	2.300	7.4E-06	7.4E-06
Arsenic	5.65E-05	9.200	0.26	4.52E-06	2.300	0.005	0.27
Benzene	1.30E-03	9.200	5.98	--	2.300	--	5.980
Beryllium	--	9.200	--	4.52E-07	2.300	5.2E-04	5.20E-04 a
Cadmium	8.40E-07	9.200	0.0039	3.87E-06	2.300	0.0045	0.0083 a
Carbon Disulfide	1.30E-04	9.200	0.60	--	2.300	--	0.60
Carbon Tetrachloride	6.00E-06	9.200	0.028	--	2.300	--	0.028
Chlorine	9.20E-04	9.200	4.23	--	2.300		4.23
Chloroform	4.70E-05	9.200	0.22	--	2.300	--	0.22
Chromium	5.55E-05	9.200	0.26	6.45E-06	2.300	0.0074	0.26
Chromium +6	1.11E-05	9.200	0.051	--	2.300	--	0.051
Cobalt	1.50E-07	9.200	6.9E-04	3.23E-04	2.300	0.37	0.37 a
Cumene	1.80E-05	9.200	0.083	--	2.300	--	0.083
Di - n - butyl Phthalate	5.80E-05	9.200	0.27	--	2.300	--	0.27
Ethyl Benzene	3.90E-06	9.200	0.018	--	2.300	--	0.018
Formaldehyde	1.30E-03	9.200	5.98	4.05E-04	2.300	0.47	6.45
n Hexane	5.50E-04	9.200	2.53	--	2.300	--	2.53
Hydrogen Chloride	5.60E-04	9.200	2.58	9.61E-02	2.300	110.5	113.1 a
Lead	2.50E-05	9.200	0.115	4.20E-05	2.300	0.048	0.163
Manganese	9.50E-05	9.200	0.44	6.45E-04	2.300	0.74	1.18 a
Mercury - Bagasse	6.30E-06	9.200	0.029	6.50E-06	2.300	7.5E-03	0.036
-Wood Waste	2.90E-07	9.200	0.0013	--	2.300	--	0.0013
Methanol	1.50E-03	9.200	6.90	--	2.300	--	6.90
Methyl Ethyl Ketone	1.20E-05	9.200	0.055	--	2.300	--	0.055
Methyl Isobutyl Ketone	8.60E-04	9.200	3.96	--	2.300	--	3.96
Methylene Chloride	1.50E-03	9.200	6.90	--	2.300	--	6.90
Napthalene	5.90E-04	9.200	2.71	--	2.300	--	2.71
Nickel	6.30E-06	9.200	0.029	3.87E-05	2.300	0.045	0.073 a
Phenols	4.10E-05	9.200	0.19	--	2.300	--	0.19
Phosphorus	1.60E-06	9.200	0.0074	--	2.300	--	0.0074
POM (Polycyclic Org. Matter)	2.20E-07	9.200	0.0010	--	2.300	--	0.0010
Selenium	3.80E-06	9.200	0.017	6.77E-05	2.300	0.08	0.10 a
Styrene	1.50E-05	9.200	0.069	--	2.300	--	0.069
2, 3, 7, 8 TCDD (dioxin)	6.00E-12	9.200	2.8E-08	--	2.300	--	2.8E-08
Toluene	9.00E-05	9.200	0.41	--	2.300	--	0.41
1, 1, 1 Trichloroethane	1.70E-04	9.200	0.78	--	2.300	--	0.78
Trichloroethylene	7.60E-06	9.200	0.035	--	2.300	--	0.035
m & p Xylene	7.80E-06	9.200	0.036	--	2.300	--	0.036
o Xylene	2.60E-06	9.200	0.012	--	2.300	--	0.012
Total HAPs							161.971
112 (r) (non-HAPs)							
Ammonia	1.48E-02	9.200	68.08	4.80E-02	2.300	55.20	123.3 a
Bromine	4.59E-05	9.200	0.21	--	2.300	--	0.21
Flourine	--	9.200	--	6.50E-04	2.300	0.7475	0.75
Other Air Toxics							
Acetone	3.80E-04	9.200	1.75	--	2.300	--	1.75
Barium	5.20E-06	9.200	0.024	7.74E-06	2.300	0.0089	0.033
Benzo(a)anthracene	7.53E-07	9.200	0.0035	--	2.300	--	0.0035
Benzo(a)pyrene	3.53E-08	9.200	1.62E-04	--	2.300	--	1.62E-04
Chrysene	3.53E-05	9.200	0.16	--	2.300	--	0.16
Copper	7.24E-05	9.200	0.33	6.15E-04	2.300	0.71	1.04 a
Indium	1.27E-04	9.200	0.58	--	2.300	--	0.58
Iodine	2.12E-06	9.200	0.010	--	2.300	--	0.010
Isopropanol	9.20E-03	9.200	42.32	--	2.300	--	42.32
Molybdenum	2.24E-07	9.200	0.0010	4.52E-05	2.300	0.052	0.053 a
PAH	5.90E-10	9.200	2.71E-06	--	2.300	--	2.71E-06
Silver	1.40E-06	9.200	0.0064	--	2.300	--	0.0064
Thallium	UD	9.200	--	--	2.300	--	-- a
Tin	3.65E-08	9.200	1.7E-04	6.45E-09	2.300	7.42E-06	1.8E-04
Tungsten	1.29E-08	9.200	5.9E-05	--	2.300	--	5.93E-05
Uranium	--	9.200	--	2.58E-08	2.300	2.97E-05	3.0E-05 a
Vanadium	1.41E-07	9.200	6.5E-04	6.45E-07	2.300	7.42E-04	0.0014 a
Yttrium	6.59E-08	9.200	3.0E-04	--	2.300	--	3.03E-04
Zinc	4.24E-04	9.200	1.95	9.81E-03	2.300	11.28	13.23 a
Zirconium	4.12E-07	9.200	0.0019	--	2.300	--	0.0019

a Denotes maximum annual emissions for any fuel scenario.

Note: UD = undetectable levels in gas stream.

Table 2-11. Maximum Concentration of Metals in Wood Waste Due To Treated Wood Burnin at Okeelanta Power Cogeneration Facility

WOOD WASTE PARAMETERS		
Total Biomass	1,352,941	tons
Total Wood waste	33%	^a
Total Wood waste	446,471	tons
CLEAN WOOD WASTE PARAMETERS		
Total Clean Wood Waste	97%	
	433,076	tons
Arsenic content (1 ppm)	0.43	tons
Chromium content (3 ppm)	1.30	tons
Copper content (15 ppm)	6.50	tons
TREATED WOOD PARAMETERS		
Percent of total wood amount	3.0%	
Total Treated Wood	13,394	tons
Treated wood density	26.3	lb/ft^3
CCA in treated wood	0.47	lb/ft^3
	0.01787	lb CCA/lb treated wood
Total CCA in treated wood	239.4	tons
Total CCA components in treated wood		
Arsenic (13%)	31.1	tons
Chromium (15%)	35.9	tons
Copper (9%)	21.5	tons
WOOD WASTE CONCENTRATIONS		
Total CCA components in wood waste		
Arsenic	31.6	tons
Chromium	37.2	tons
Copper	28.0	tons
Arsenic	70.7	ppm
Chromium	83.3	ppm
Copper	62.8	ppm

^a Expected percentage of total biomass on annual basis.

Table 2-12. Maximum Emissions Of Metals Due To Treated Wood Waste Burning at Okeelanta Power Cogeneration Facility

Parameter	Annual Average		Maximum Short-Term	
BIOMASS PARAMETERS				
Total biomass heat input	1.150E+07	MMBtu/yr	715	MMBtu/hr
Total biomass^a	1,352,941	tons/yr	168,235	lb/hr
Total bagasse percentage^b	67%		0%	
Total bagasse amount	906,471	tons/yr	0	lb/hr
Total wood waste percentage^b	33%		100%	
Total wood waste amount	446,471	tons/yr	168,235	lb/hr
BAGASSE CONCENTRATIONS^c				
Arsenic	1.0	ppm	1.0	ppm
Chromium	3.0	ppm	3.0	ppm
Copper	15.0	ppm	15.0	ppm
WOOD WASTE CONCENTRATIONS				
Total CCA components in wood waste (clean wood plus treated wood):				
Arsenic	70.7	ppm	70.7	ppm
Chromium	83.3	ppm	83.3	ppm
Copper	62.8	ppm	62.8	ppm
CCA COMPONENTS IN BIOMASS				
Arsenic: Bagasse	0.91	tons/yr	0	lb/hr
Wood Waste	31.57	tons/yr	11.89	lb/hr
Total	32.47	tons/yr	11.89	lb/hr
Chromium: Bagasse	2.72	tons/yr	0	lb/hr
Wood Waste	37.19	tons/yr	14.01	lb/hr
Total	39.91	tons/yr	14.01	lb/hr
Copper: Bagasse	13.60	tons/yr	0	lb/hr
Wood Waste	28.04	tons/yr	10.57	lb/hr
Total	41.64	tons/yr	10.57	lb/hr
EMISSIONS OF CCA^d				
Arsenic	0.325	tons/yr	0.119	lb/hr
Chromium^e	0.319	tons/yr	0.112	lb/hr
Chromium +6^e	0.080	tons/yr	0.028	lb/hr
Copper	0.416	tons/yr	0.106	lb/hr
Arsenic	5.65E-05	lb/MMBtu	1.66E-04	lb/MMBtu
Chromium^e	5.55E-05	lb/MMBtu	1.57E-04	lb/MMBtu
Chromium +6^e	1.11E-05	lb/MMBtu	3.14E-05	lb/MMBtu
Copper	7.24E-05	lb/MMBtu	1.48E-04	lb/MMBtu

^a Based on conservative heating value for wood waste of 4,250 Btu/lb.
^b Based on typical concentrations occurring in biomass.
^c Assumes all of CCA exits boiler in flue gases, and ESP has 99% removal efficiency.
^d Expected percentage on an annual basis.
^e Assumes 20% of total chromium is hexavalent.

Table 2-13. Maximum Annual Fugitive Dust Emissions for Okeelanta Power Facility

SOURCE	TYPE OF OPERATION	M MOISTURE CONTENT (%)	U WIND SPEED (MPH)	UNCONTROLLED EMISSION FACTOR (LB/TON) a	CONTROL	CONTROL EFFICIENC (%)	CONTROLLED EMISSION FACTOR (LB/TON)	ACTIVITY FACTOR	MAXIMUM ANNUAL PM(TSP) EMISSIONS (TONS/YR)	PM10 SIZE MULT	MAXIMUM ANNUAL PM10 EMISSIONS (TONS/YR)
Coal Handling											
RAILCAR UNLOADING	BATCH DROP	4.5	9.4	0.00234	ENCLOSURE	70	0.00070	73,714 TPY	0.026	0.35	0.009
CONVEYOR-TO-COAL PILE	CONTINUOUS DROP	4.5	9.4	0.00234	NONE	0	0.00234	73,714 TPY	0.086	0.35	0.030
UNDERPILE RECLAIM HOPPER	CONTINUOUS DROP	4.5	9.4	0.00234	ENCLOSURE	90	0.00023	73,714 TPY	0.009	0.35	0.003
CONVEYOR-TO-CRUSHER	CONTINUOUS DROP	4.5	9.4	0.00234	ENCLOSURE	0	0.00234	73,714 TPY	0.086	0.35	0.030
COAL CRUSHER	COAL CRUSHING	–	–	0.02 h	ENCLOSURE	70	0.00600	73,714 TPY	0.221	0.45	0.100
CRUSHER-TO-CONVEYOR	CONTINUOUS DROP	4.5	9.4	0.00234	ENCLOSURE	0	0.00234	73,714 TPY	0.086	0.35	0.030
CONVEYOR-TO-BOILER SILO	CONTINUOUS DROP	4.5	9.4	0.00234	ENCLOSURE	0	0.00234	73,714 TPY	0.086	0.35	0.030
STORAGE PILE	WIND EROSION	–	–	–	NONE	0	–	–	0.211 e	0.5	0.105 e
COAL STORAGE PILE MAINTENANCE	VEHICULAR TRAFFIC	–	–	0.96 b	WATERING	50	0.48 lb/VMT	4,800 VMT	1.157 e	0.35	0.405 e
Biomass Handling											
TRUCK DUMPS (2)	BATCH DROP	37	9.4	0.00012	NONE	0	0.00012	1,352,941 TPY	0.083	0.35	0.029
CHAIN CONVEYORS-TO-UNLOADING CONVEYOR (2)	CONTINUOUS DROP	37	9.4	0.00012	ENCLOSURE	0	0.00012	1,352,941 TPY	0.083	0.35	0.029
UNLOADING CONVEYOR-TO-SCREEN	CONTINUOUS DROP	37	9.4	0.00012	ENCLOSURE	0	0.00012	1,352,941 TPY	0.083	0.35	0.029
SCREEN	CONTINUOUS DROP	37	9.4	0.00012	NONE	0	0.00012	1,352,941 TPY	0.083	0.35	0.029
SCREEN-TO-HOGGER	CONTINUOUS DROP	37	9.4	0.00012	ENCLOSURE	0	0.00012	1,352,941 TPY	0.083	0.35	0.029
HOGGER	CRUSHING	–	–	0.02	ENCLOSED	95	0.00100	1,352,941 TPY	0.676	0.35	0.237
HOGGER-TO-STORAGE CONVEYOR	BATCH DROP	37	9.4	0.00012	ENCLOSURE	0	0.00012	1,352,941 TPY	0.083	0.35	0.029
SCREEN-TO-STORAGE CONVEYOR	CONTINUOUS DROP	37	9.4	0.00012	ENCLOSURE	0	0.00012	0 TPY	0.000	0.35	0.000
SCREEN-TO-BOILER FEED CONVEYOR	CONTINUOUS DROP	37	9.4	0.00012	ENCLOSURE	0	0.00012	0 TPY	0.000	0.35	0.000
STORAGE CONVEYOR-TO-RADIAL STACKER	CONTINUOUS DROP	37	9.4	0.00012	ENCLOSURE	0	0.00012	1,352,941 TPY	0.083	0.35	0.029
RADIAL STACKER-TO-BIOMASS STORAGE PILE	CONTINUOUS DROP	37	9.4	0.00012	NONE	0	0.00012	1,352,941 TPY	0.083	0.35	0.029
UNDERPILE RECLAIMERS (2)	CONTINUOUS DROP	37	9.4	0.00012	ENCLOSED	90	0.00001	1,352,941 TPY	0.008	0.35	0.003
RECLAIMERS-TO-BOILER FEED CONVEYOR (2)	CONTINUOUS DROP	37	9.4	0.00012	ENCLOSURE	0	0.00012	1,352,941 TPY	0.083	0.35	0.029
BOILER FEED CONVEYOR-TO-CHAIN DIST. CONVEYOR (2)	CONTINUOUS DROP	37	9.4	0.00012	ENCLOSURE	0	0.00012	1,352,941 TPY	0.083	0.35	0.029
CHAIN DIST. CONVEYOR -TO-BOILER METER BINS (4)	BATCH DROP	37	9.4	0.00012	ENCLOSURE	0	0.00012	1,352,941 TPY	0.083	0.35	0.029
BAGASSE CONVEYOR-TO-CHAIN DIST CONVEYOR (2)	CONTINUOUS DROP	37	9.4	0.00012	ENCLOSURE	0	0.00012	0 TPY	0.000	0.35	0.000
BAGASSE CONVEYOR-TO-RECYCLE CONVEYOR	CONTINUOUS DROP	37	9.4	0.00012	ENCLOSURE	0	0.00012	0 TPY	0.000	0.35	0.000
CHAIN DIST. CONVEYORS-TO-RECYLE CONVEYOR (2)	CONTINUOUS DROP	37	9.4	0.00012	ENCLOSURE	0	0.00012	135,294 TPY	0.008	0.35	0.003
RECYCLE CONVEYOR-TO-RECYCLE STACKER	CONTINUOUS DROP	37	9.4	0.00012	ENCLOSURE	0	0.00012	0 TPY	0.000	0.35	0.000
RECYCLE CONVEYOR-TO-STORAGE CONVEYOR	CONTINUOUS DROP	37	9.4	0.00012	ENCLOSURE	0	0.00012	135,294 TPY	0.008	0.35	0.003
RECYCLE STACKER-TO-BIOMASS STORAGE PILE	CONTINUOUS DROP	37	9.4	0.00012	NONE	0	0.00012	0 TPY	0.000	0.35	0.000
BIOMASS STORAGE PILES (2)	WIND EROSION	–	–	–	NONE	0	–	–	0.175 e	0.5	0.087 e
BIOMASS STORAGE PILE MAINTENANCE	VEHICULAR TRAFFIC	–	–	0.96 b	WATERING	50	0.48 lb/VMT	21,900 VMT	5.278 e	0.35	1.847 e
BOILER HOUSE DUST COLLECTOR BAGHOUSE	–	–	–	–	BAGHOUS	99	0.01 gr/acf	30,000 acfm	11.263	1.0	11.263
Mercury Control System											
CARBON SILO FILTER	–	–	–	–	BAGHOUS	99	0.01 gr/acf	2,500 acfm	0.939	1.0	0.939
Fly Ash Handling											
FLY ASH SILO FILTER	–	–	–	–	BAGHOUS	99	0.01 gr/acf	2,500 acfm	0.939	1.0	0.939
FLY ASH TRANSFER-TO-TRUCK	CONTINUOUS DROP	5.0	9.4	0.00202	WETTING	50	0.00101	46,533 TPY f	0.023	0.35	0.008
Tire-Derived Fuel handling											
TDF Handling	VEHICULAR TRAFFIC	–	–	0.96 b	WATERING	50	0.48 lb/VMT	21,900 VMT	5.278 e	0.35	1.847 e
TOTAL									27.473		18.237

a Batch Drop and Continuous Drop Emission Factors are computed from AP-42 (USEPA, 1988)Section 11.2.3:
E= 0.0032 x (U/5)^1.3 / (M/2)^1.4 lb/ton
b Pound per Vehicle Mile Travel (lb/VMT), see Appendix C for derivation.
c Based on vehicle operating 8 hrs/day, 120 days/yr @ 5 mph.
d Based on vehicle operating 12 hrs/day, 365 days/yr @ 5 mph.
e Refer to Appendix C for derivation.
f Based on 1,352,941 TPY biomass @ 3.24% ash and 73,714 TPY coal @ 3.66% ash.
g Assuming 10% of biomass is overfeed and is returned to biomass storage pile..
h Emission Factor for Coal Crusher derived from AP-42 Table 8.23-1, for high moisture ore; same factor used for biomass crushing.

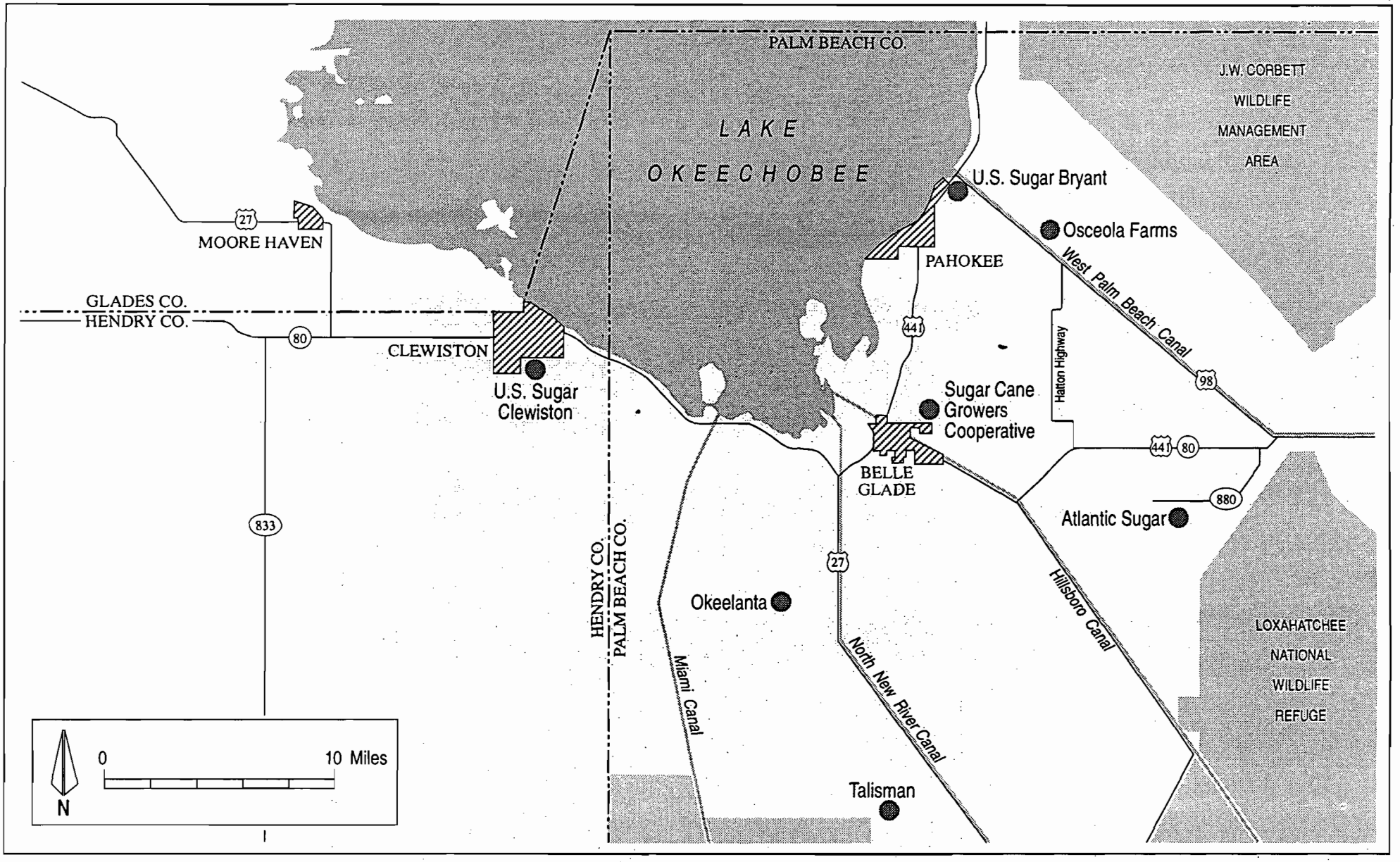

Figure 2-1
Regional Site Map

KBN
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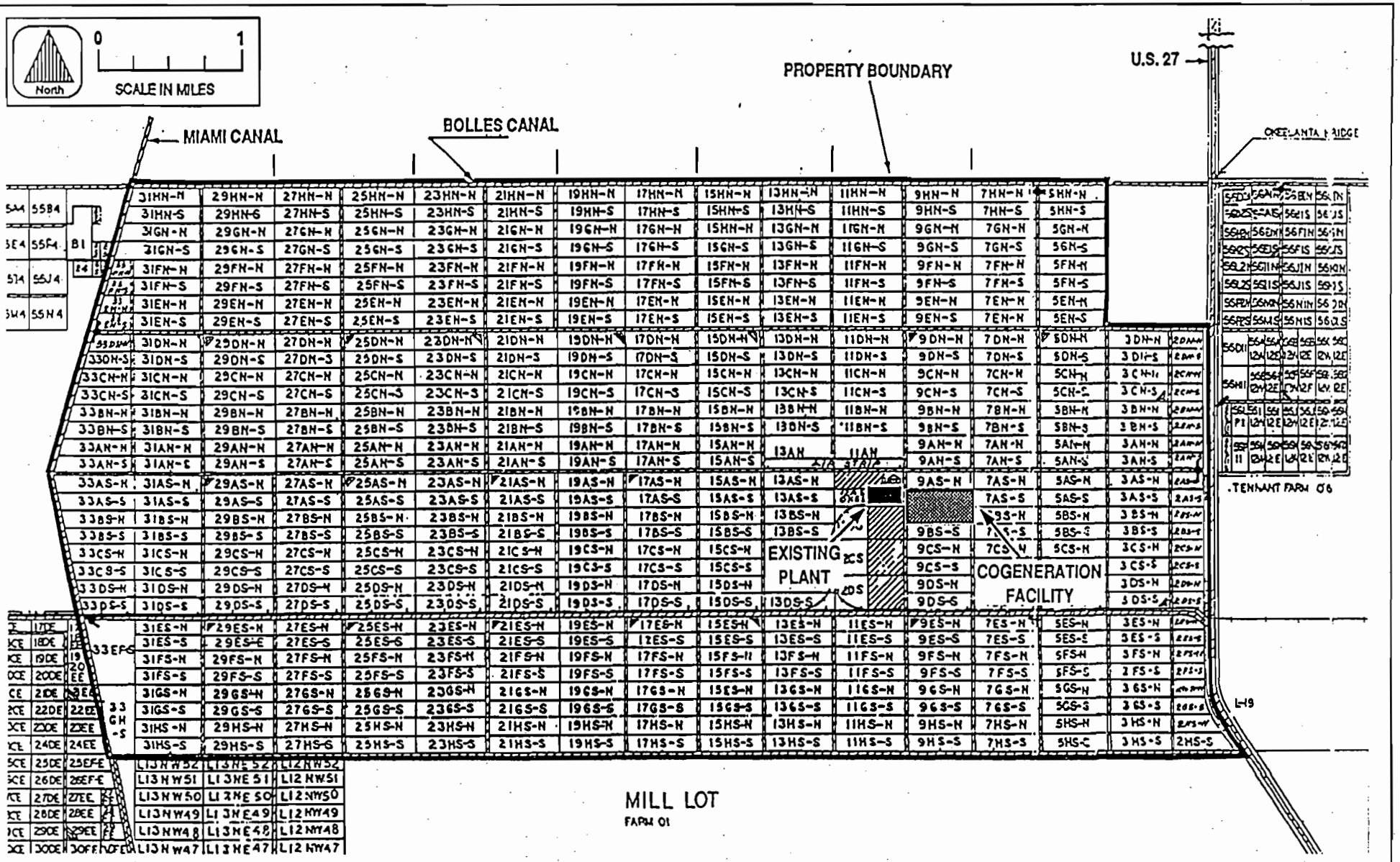

Figure 2-2
Location of Existing Sugar Mill and Cogeneration Facility

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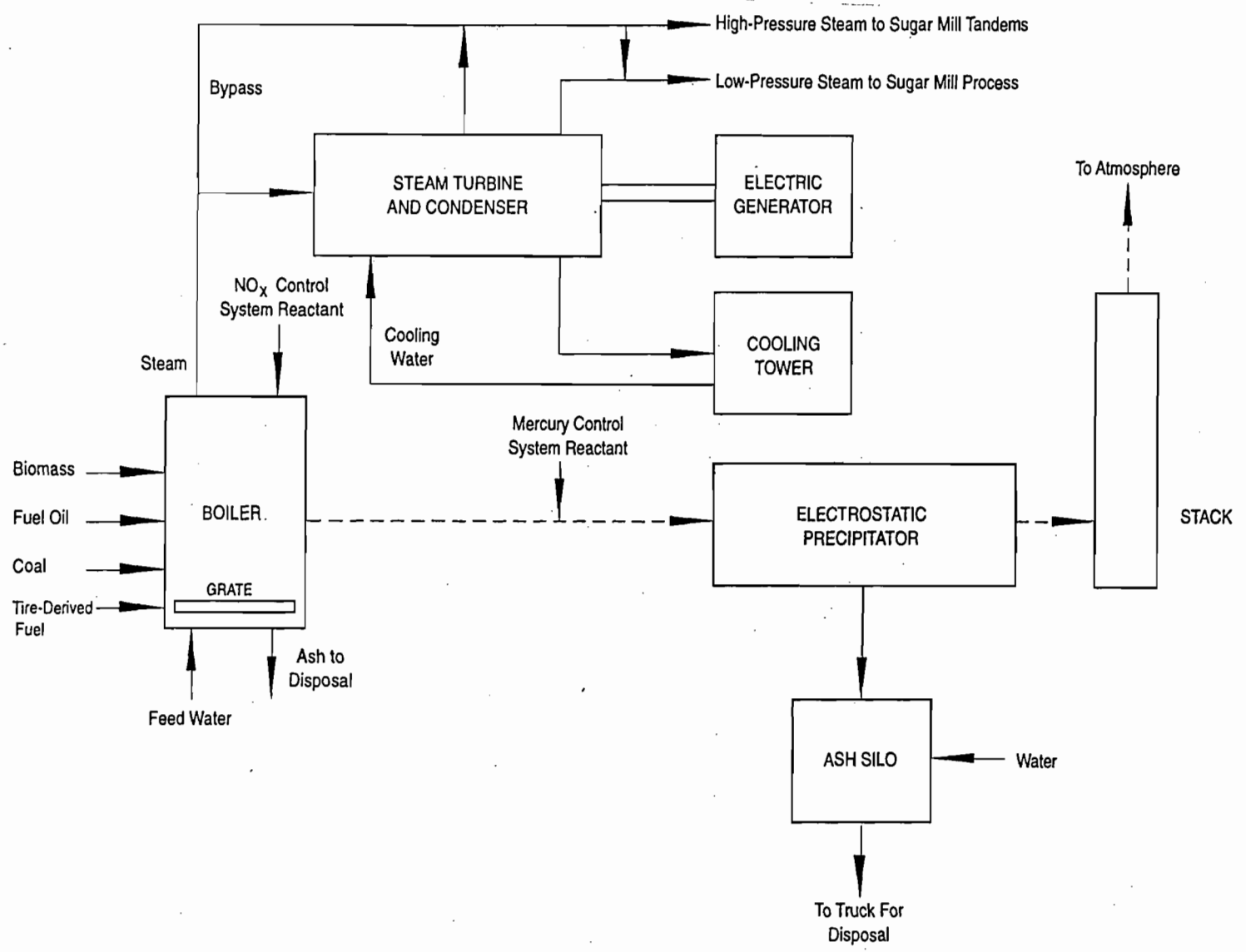

Figure 2-3
Simplified Flow Diagram for Okeelanta Power Cogeneration Facility

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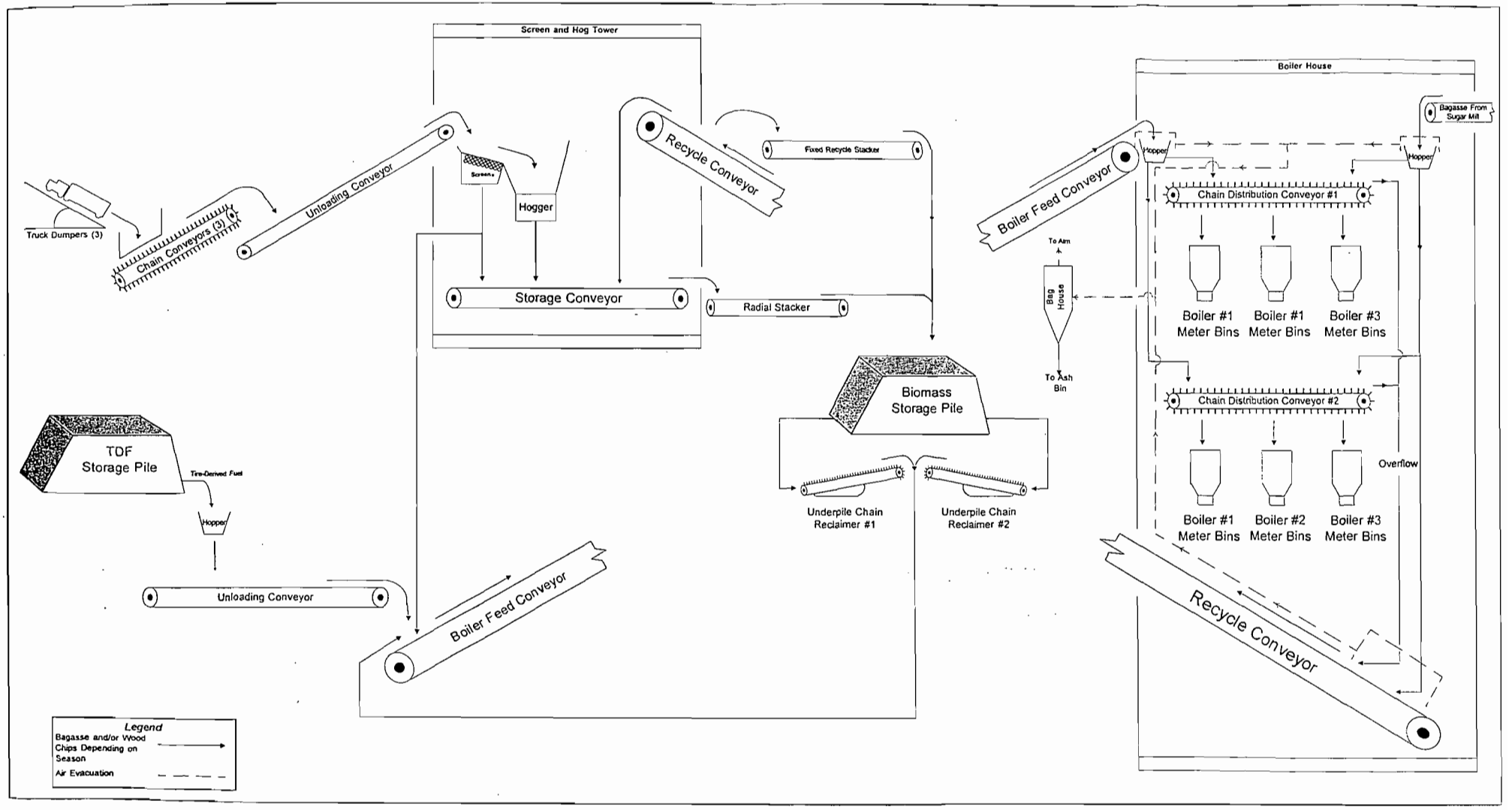

Figure 2-4.
Okeelanta Power Fuel Handling System

Okeelanta Power Limited Partnership | South Bay, Florida

Filename: OKFULFLW.VSD Project: 9651013Y/F1/WP

Latest Revision Date: 3/19/96

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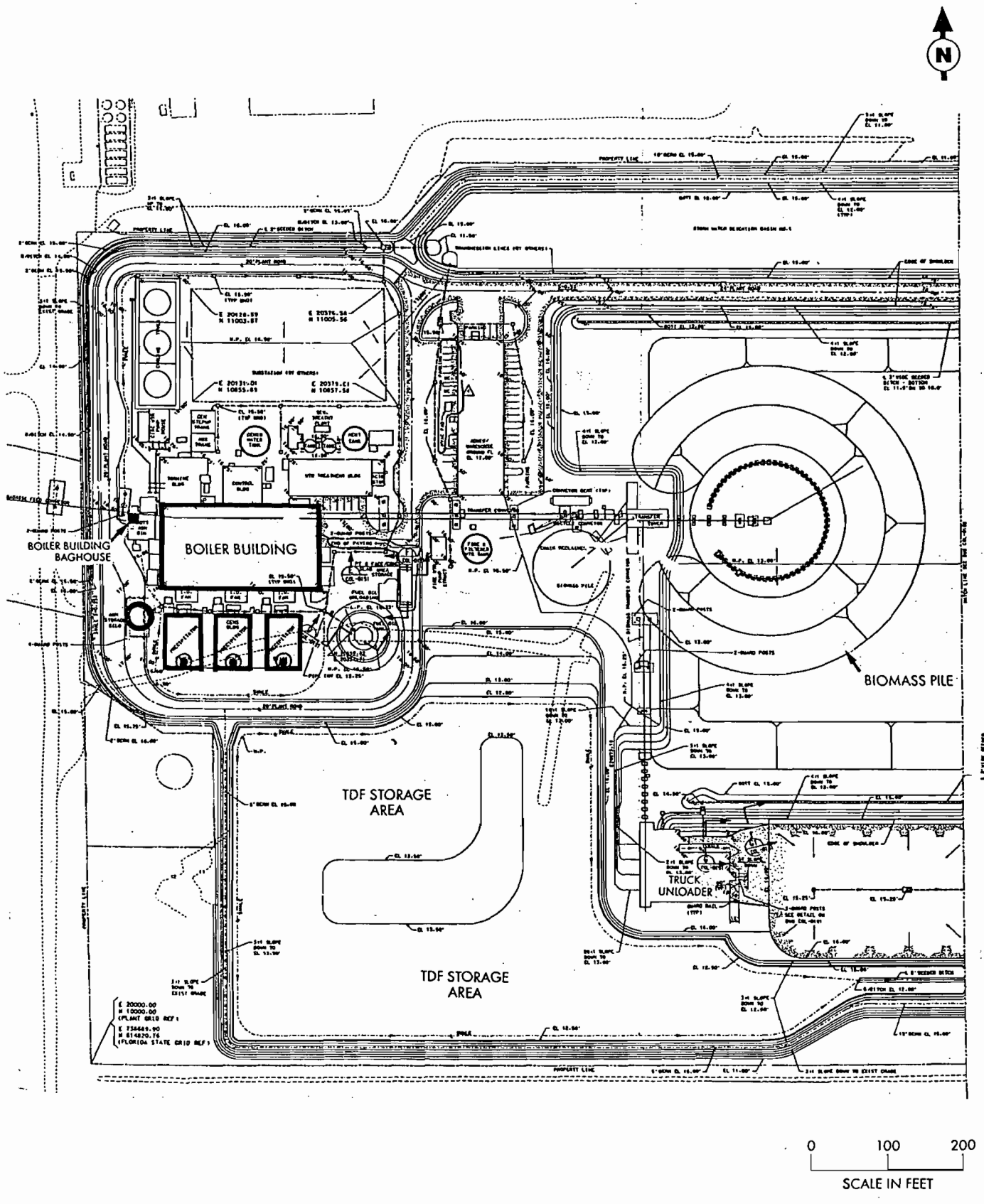

Figure 2-5
Plot Plan of Okeelanta Power

Source: Bechtel, 1995.

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3.0 AIR QUALITY REVIEW REQUIREMENTS AND SOURCE APPLICABILITY

Okeelanta Power received a state and federal PSD construction permit in 1993. PSD review was triggered for SO_2, beryllium, and fluorides. The facility is now in the startup period but has not yet conducted compliance testing. Okeelanta Power is now proposing changes to the facility and desires to amend the PSD construction permit. As presented in Section 2.0, the proposed emissions from the boilers are not greater than the currently permitted emissions. Some additional fugitive PM emissions may be generated by TDF handling. A revised PSD source applicability analysis for Okeelanta Power, incorporating these changes, is provided in Table 3-1. As shown, based on the current permit limits and the Okeelanta Power 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 toxics emission rates. 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 Okeelanta Power Facility

Regulated Pollutant	Cogeneration Facility Emissions (TPY)			Significant Emission Rate (TPY)	Current Permit Limit (TPY)	PSD Applies ?	Permit Amendment Required ?
	Baseline	Annual	Net Change				
Particulate (TSP)	473.7	200.0[a]	-273.7	25	172.5[c]	No	No
Particulate (PM10)	426.3	190.8[b]	-235.5	15	172.5[c]	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	0.17	-0.11	0.6	0.17	No	No
Mercury	0.0292	0.0300	0.0008	0.1	0.0300	No	No
Beryllium	0.0004	0.0052	0.0048	0.0004	0.0052	No	No
Fluorides	0.04	21.2	21.2	3	21.2	No	No
Sulfuric Acid Mist	22.4	34.6	12.2	7	34.6	No	No
Total Reduced Sulfur	--	--	0	10	--	No	No
Asbestos	--	--	0	0.007	--	No	No
Vinyl Chloride	--	--	0	0	--	No	No

[a] Includes 172.5 TPY from boilers and 27.5 TPY from fugitive dust sources.

[b] Includes 172.5 TPY from boilers and 18.3 TPY from fugitive dust sources.

[c] PM/PM10 emissions from boilers only; does not included fugitive dust sources.

4.0 AIR TOXICS MODELING ANALYSIS

4.1 INTRODUCTION

As a result of the utilization of TDF as a supplemental fuel and the use of updated emission factors for hazardous/toxic air pollutants, emissions of these pollutants may have changed from the original application. In addition, FDEP released Version 4.0 of the air toxics working list in August 1995. As a result, some of the Florida air reference concentrations (FARCs) have changed since the original application. Therefore, a revised air modeling analysis for HAPs/toxics was conducted.

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 Okeelanta Cogeneration 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 Okeelanta Cogeneration 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.

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

ISCST3 Model Features
• 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.

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)

	Emission Rates (Total 3 Boilers)		Concentrations (µg/m³)						Compound
	Maximum	Annual	8-Hour		24-Hour		Annual		Complies With
Pollutant	(lb/hr)	(TPY)	Impact	FARC	Impact	FARC	Impact	FARC	FARCs?
acetaldehyde	1.67	4.49	0.0906	450	0.0689	107	0.0029	0.5	YES
acetone	0.82	2.19	0.0442	17800	0.0336	4238	1.4E-03	NA	YES
acetophenone	0.0079	0.021	0.0004	490	0.0003	117	1.4E-05	100	YES
acrolein	0.139	0.37	0.0076	2.3	0.0057	0.5	2.4E-04	0.02	YES
ammonia	70.6	123.3	3.8229	170	2.9072	41	0.080	100	YES
antimony	0.051	0.029	0.0028	5	0.0021	1.2	1.9E-05	0.3	YES
arsenic	0.36	0.32	0.0193	0.1	0.0147	0.02	0.00021	0.00023	YES
barium	0.11	0.09	0.0059	5	0.0045	1.2	5.9E-05	50	YES
benzene	2.79	7.48	0.1511	30	0.1149	7	0.0049	0.12	YES
benzo (a) anthracene (POM)	0.0016	0.0043	8.7E-05	NA	6.6E-05	NA	2.8E-06	0.0011	YES
benzo (a) pyrene	7.6E-05	2.0E-04	4.1E-06	NA	3.1E-06	NA	1.3E-07	0.0003	YES
beryllium	0.0087	5.0E-04	4.7E-04	0.02	3.6E-04	0.005	3.3E-07	0.00042	YES
bromine	1.16	0.88	0.0629	6.6	0.0478	1.6	5.7E-04	NA	YES
cadmium	0.0049	0.0083	2.6E-04	0.02	2.0E-04	0.005	5.4E-06	0.00056	YES
carbon disulfide	0.28	0.75	0.0151	310	0.0115	74	4.9E-04	200	YES
carbon tetrachloride	0.013	0.035	0.0007	310	0.0005	74	2.2E-05	0.067	YES
chlorine	1.97	5.29	0.1069	15	0.0813	3.6	0.0034	0.4	YES
chloroform	0.10	0.27	0.0055	490	0.0042	117	1.8E-04	0.043	YES
chromium	0.34	0.32	0.0182	5	0.0139	1.2	2.1E-04	1000	YES
chromium +6	0.067	0.064	0.0036	0.5	0.0028	0.1	4.2E-05	0.000083	YES
chrysene	0.076	0.20	0.0041	2	0.0031	0.5	1.3E-04	NA	YES
cobalt	0.330	0.37	0.0179	0.5	0.0136	0.1	2.4E-04	NA	YES
copper	0.79	1.04	0.0429	10	0.0326	2.4	6.8E-04	NA	YES
cumene	0.039	0.10	0.0021	2460	0.0016	586	6.7E-05	1	YES
dibutyl phthalate	0.124	0.33	0.0067	50	0.0051	12	2.2E-04	100	YES
ethylbenzene	0.008	0.022	0.0005	4340	0.0003	1033	1.5E-05	1000	YES
fluorine (as fluorides)	35.28	21.21	1.9115	25	1.4536	6	0.014	NA	YES
formaldehyde	2.79	7.48	0.1511	3.7	0.1149	0.9	0.0049	0.077	YES
hexane	1.18	3.16	0.0639	1760	0.0486	419	0.0021	200	YES
hydrogen chloride	116.1	113.1	6.2919	70	4.7848	17	0.0735	7	YES
indium	0.27	0.73	0.0148	1	0.0112	0.2	4.7E-04	NA	YES
iodine	0.0050	0.012	0.0003	10	0.0002	2.4	7.8E-06	NA	YES
isopropanol	19.73	52.90	1.0690	9800	0.8129	2333	3.4E-02	NA	YES
lead	0.071	0.171	0.0038	0.5	0.0029	0.1	1.1E-04	0.09	YES
manganese	0.77	1.18	0.0414	50	0.0315	12	7.7E-04	0.05	YES
mercury	0.014	0.037	0.0007	0.5	0.0006	0.1	2.4E-05	0.3	YES
methanol	3.22	8.63	0.1743	2600	0.1326	619	5.6E-03	NA	YES
methyl ethyl ketone	0.026	0.069	0.0014	5900	0.0011	1405	4.5E-05	1000	YES
methyl isobutyl ketone	1.84	4.95	0.0999	2050	0.0760	488	3.2E-03	NA	YES
methylene chloride	3.22	8.63	0.1743	1740	0.1326	414	5.6E-03	2	YES
molybdenum	0.05	0.053	0.0025	50	0.0019	12	3.4E-05	NA	YES
m&p xylene	0.017	0.045	0.0009	4340	0.0007	1033	2.9E-05	80	YES
napthalene	1.27	3.39	0.0686	500	0.0521	119	2.2E-03	NA	YES
nickel	0.047	0.073	0.0025	10	0.0019	2.4	4.8E-05	0.0042	YES
o xylene	0.006	0.015	0.0003	4340	0.0002	1033	9.7E-06	80	YES
PAH	1.3E-06	3.4E-06	6.9E-08	2	5.2E-08	0.5	2.2E-09	NA	YES
phenols	0.088	0.24	0.0048	190	0.0036	45	1.5E-04	30	YES
phosphorus	1.26	0.73	0.0685	1	0.0521	0.2	4.7E-04	NA	YES
pom (polycyclic organic matter)	0.012	0.013	0.0007	NA	0.0005	NA	8.4E-06	NA	YES
selenium	0.079	0.10	0.0043	2	0.0032	0.5	6.5E-05	NA	YES
silver	0.0030	0.0081	1.6E-04	0.1	1.2E-04	0.02	5.2E-06	NA	YES
styrene	0.032	0.086	0.0017	2130	0.0013	507	5.6E-05	1000	YES
sulfuric acid mist	52.9	34.6	2.87	10	2.18	2.4	2.3E-02	NA	YES
tin	0.013	0.0076	7.0E-04	1	5.3E-04	0.2	4.9E-06	NA	YES
2,3,7,8 -TCDD (dioxin)	1.3E-08	3.5E-08	7.0E-10	NA	5.3E-10	NA	2.2E-11	2.2E-08	YES
toluene	0.19	0.52	0.0105	1880	0.0080	448	3.4E-04	400	YES
1, 1, 1 trichloroethane	0.36	0.98	0.0198	19000	0.015	4524	6.4E-04	NA	YES
trichloroethylene	0.016	0.044	0.0009	2690	6.7E-04	640	2.8E-05	0.77	YES
tungsten	2.8E-05	7.4E-05	1.50E-06	50	1.1E-06	12	4.8E-08	NA	YES
uranium	2.6E-05	3.0E-05	1.4E-06	0.5	1.1E-06	0.1	1.9E-08	NA	YES
vanadium	8.2E-04	0.0014	4.4E-05	0.5	3.4E-05	0.1	9.1E-07	20	YES
yttrium	1.4E-04	3.8E-04	7.6E-06	10	5.8E-06	2.4	2.5E-07	NA	YES
zinc	10.48	13.23	0.57	10	0.43	2.4	8.6E-03	NA	YES
zirconium	8.8E-04	0.0024	4.8E-05	50	3.6E-05	12	1.5E-06	NA	YES

Notes: FARC= Florida Ambient Reference Concentrations, Version 4.0.
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=	4.3
24-hour=	3.27
Annual=	0.226

APPENDIX A

EMISSION FACTORS

Table A-1. Emission Factors for Criteria/Designated Pollutants, Okeelanta Power L. P. Cogeneration Facility

Regulated Pollutant	Biomass Emission Factor (lb/MMBtu)	Biomass Reference	No. 2 Fuel Emission Factor (lb/MMBtu)	No. 2 Fuel Reference	Coal Emission Factor (lb/MMBtu)	Coal Reference	Tire-Derived Fuel Emission Factor (lb/MMBtu)	Tire-Derived Fuel Reference
Particulate (TSP)	0.03	NSPS, Current permit limit	0.03	NSPS, Current permit limit	0.03	NSPS, Current permit limit	0.03	NSPS, Current permit limit
Particulate (PM10)	0.03	NSPS, Current permit limit	0.03	NSPS, Current permit limit	0.03	NSPS, Current permit limit	0.03	NSPS, Current permit limit
Sulfur dioxide: 24-hr Annual average - Bagass - Wood w	0.10 0.02 0.05	Current permit limit Current permit limit Okeelanta CEM data	0.05	Current permit limit	1.2	NSPS, Current permit limit	1.2 0.8	NSPS, Current permit limit S content of TDF; S capture in ash
Nitrogen oxides	0.15	Current permit limit	0.15	Current permit limit	0.17	Current permit limit	0.15	Current permit limit for biomass
Carbon monoxide	0.35	Current permit limit	0.20	Current permit limit	0.20	Current permit limit	0.35	Current permit limit for biomass
VOC	0.060	Current permit limit	0.03	Current permit limit	0.03	Current permit limit	0.06	Current permit limit for biomass
Lead	2.5E-05	Current permit	8.9E-07	Current permit limit	6.4E-05	Current permit limit	4.2E-05	TDF analysis; 99% removal
Mercury- Bagasse Wood waste	6.3E-06 2.9E-07	Current permit Current permit	2.4E-06	Current permit limit	8.4E-06	Current permit limit	6.5E-06	TDF analysis
Beryllium	--		3.5E-07	Current permit limit	5.9E-06	Current permit limit	4.5E-07	TDF analysis; 99% removal
Fluorides	--		6.27E-06	Current permit limit	0.024	Current permit limit	6.5E-04	TDF analysis
Sulfuric acid mist: 24-hr Annual average	0.003 0.0060	Original permit application AP-42; 4% of SO2 is SO3	0.0015	Current permit limit	0.036	Current permit limit	0.010 0.0069	AP-42 factor for coal: 0.7% of SO2 is SO3
Total reduced sulfur	--		--		--	--	--	--
Asbestos	--		--		--	--	--	--
Vinyl Chloride	--		--		--	--	--	--

Table A-2. Emission Factors for Hazardous Air Pollutants

	Biomass				No. 2 Fuel Oil				Coal			
	Ref	Published Emission Factor		Converted Emission Factor (lb/MMBtu)	Ref.	Published Emission Factor		Converted Emission Factor (lb/MMBtu)	Ref.	Published Emission Factor		Converted Emission Factor (lb/MMBtu)
Acetaldehyde	1	7.8E-04	lb/MMBtu	7.8E-04								
Acetophenone	1	3.7E-06	lb/MMBtu	3.7E-06								
Acrolein	1	6.5E-05	lb/MMBtu	6.5E-05								
Antimony	1	ND		--	3	24	lb/10^{12} Btu[a]	2.4E-07	5	0.15	ng/J	3.5E-05
Arsenic - Maximum	10	1.66E-04	lb/MMBtu	1.66E-04	8	4.2	lb/10^{12} Btu[a]	4.2E-08	9	542	lb/10^{12} Btu[a]	5.4E-06
- Annual	10	5.65E-05	lb/MMBtu	5.65E-05								
Benzene	1	1.3E-03	lb/MMBtu	1.3E-03								
Cadmium	1	0.84	lb/10^{12} Btu	8.4E-07	8	11	lb/10^{12} Btu[a]	1.1E-07	9	43	lb/10^{12} Btu[a]	4.3E-07
Carbon Disulfide	1	1.3E-04	lb/MMBtu	1.3E-04								
Carbon Tetrachloride	1	6E-06	lb/MMBtu	6.0E-06								
Chlorine	2	0.0078	lb/ton	9.2E-04								
Chloroform	1	4.7E-05	lb/MMBtu	4.7E-05								
Chromium - Maximum	10	1.57E-04	lb/MMBtu	1.57E-04	8	67	lb/10^{12} Btu[a]	6.7E-07	9	1570	lb/10^{12} Btu[a]	1.6E-05
- Annual	10	5.55E-05	lb/MMBtu	5.55E-05								
Chromium (VI) - Maximum	10	3.14E-05	lb/MMBtu	3.14E-05	7		20% of Cr	1.3E-07	7		20% of Cr	3.1E-06
- Annual	10	1.11E-05	lb/MMBtu	1.11E-05								
Cobalt	2	1.3E-04	lb/ton[a]	1.3E-04	5	50.5	pg/J	1.2E-05	5	0.31	ng/J	7.2E-05
Cumene	1	1.8E-05	lb/MMBtu	1.8E-05								
Di - n - Butyl Phthalate	1	5.8E-05	lb/MMBtu	5.8E-05								
Ethyl Benzene	1	3.9E-06	lb/MMBtu	3.9E-06								
Formaldehyde	1	1.3E-03	lb/MMBtu	1.3E-03	8	405	lb/10^{12} Btu	4.1E-04	9	221	lb/10^{12} Btu	2.2E-04
n Hexane	1	5.5E-04	lb/MMBtu	5.5E-04								
Hydrogen Chloride	1	5.6E-04	lb/MMBtu	5.6E-04	6	274	pg/J	6.4E-04	6	33.9	ng/J	7.9E-02
Manganese	1	95	lb/10^{12} Btu	9.5E-05	8	14	lb/10^{12} Btu[a]	1.4E-07	4	31	lb/10^{12} Btu[a]	3.1E-07
Methanol	1	1.5E-03	lb/MMBtu	1.5E-03								
Methyl Ethyl Ketone	1	1.2E-05	lb/MMBtu	1.2E-05								
Methyl Isobutyl Ketone	1	8.6E-04	lb/MMBtu	8.6E-04								
Methylene Chloride	1	1.5E-03	lb/MMBtu	1.5E-03								
Napthalene	1	5.9E-04	lb/MMBtu	5.9E-04								
Nickel	1	6.3	lb/10^{12} Btu	6.3E-06	8	170	lb/10^{12} Btu[a]	1.7E-06	4	1020	lb/10^{12} Btu[a]	1.0E-05
Phenols	1	4.1E-05	lb/MMBtu	4.1E-05								
Phosphorous	1	160	lb/10^{12} Btu	1.6E-06	5	25	pg/J	5.8E-05	5	3.7	ng/J	8.6E-04
Polycyclic Organic Matter	2	22	lb/10^{12} Btu	2.2E-07	8	8	lb/10^{12} Btu	8.4E-06				
Selenium	1	3.8	lb/10^{12} Btu	3.8E-06	2	38	lb/10^{12} Btu[a]	3.8E-07	5	0.23	ng/J	5.3E-05
Styrene	1	1.5E-05	lb/MMBtu	1.5E-05								
2,3,7,8 Tetrachlorodibenzo -p-dioxin	2	5.1E-11	lb/ton	6.0E-12								
Toluene	1	9.0E-05	lb/MMBtu	9.0E-05								
1,1,1 Trichlorethane	1	1.7E-04	lb/MMBtu	1.7E-04								
Trichloroethylene	1	7.6E-06	lb/MMBtu	7.6E-06								
m & p Xylene	1	7.8E-06	lb/MMBtu	7.8E-06								
o Xylene	1	2.6E-06	lb/MMBtu	2.6E-06								

[a] Uncontrolled emission factor; 99% control with ESP is assumed to calculate controlled emission factor.

Conversions:
lb/10^{12} Btu x 10^{12} Btu/1,000,000 MMBtu = lb/MMBtu
lb/ton x ton/2000 lb x lb/4250 BTU x 10^{6} Btu/MMBtu = lb/MMBtu
ng/J x 2.324x10^{-3} = lb/MMBtu (uncontrolled)
ng/J x 2.324x10^{-4} = lb/MMBtu (90% controll)
pg/J x 2.324x10^{-6} = lb/MMBtu (uncontrolled)
ng/J x 2.324x10^{-4} = lb/MMBtu (90% controll)

Note: UD = undetectable levels in gas stream.
References
1: Based on NCASI Compilation of Air Toxic Emission Data for Boilers, Pulp Mills, and Bleach Plants, Technical Bulletin No. 650, June 1993, Tables 5A an
2: AP-42, Tables 1.6-5 and 1.6-7.
3. AP-42, Table 1.3-11, low value for No. 6 fuel oil.
4: Estimating Emissions from Oil and Coal Combustion Sources EPA-450/2-89-001 (1989).
5: Emissions Assessment of Conventional Stationary Combustion Systems Volume V, 1981. Based on an uncontrolled spreader stoker design and then assuming 90% control from ESP.
6: Emissions Assessment of Conventional Stationary Combustion Systems Volume V, 1981. Based on an uncontrolled spreader stoker design.
7: Based upon stack test data at Dade County RRF, 1992, which indicated less than 20% of total chromium was chromium +6.
8. AP-42, Tables 1.3-9 and 1.3-11.
9. AP-42, Table 1.1-13.
10. Based on 3.0% treated wood burning.

Source: KBN, 1996.

Table A-3. Emission Factors for Additional Florida Air Toxics, Okeelanta Power

	Biomass				No.2 Fuel Oil				Coal			
Pollutant	Ref.	Published Emission Factor		Converted Emission Factor (lb/MMBtu)	Reference	Published Emission Factor		Converted Emission Factor (lb/MMBtu)	Ref.	Published Emission Factor		Converted Emission Factor (lb/MMBtu)
Acetone	1	3.8E-04	lb/MMBtu	3.80E-04								
Ammonia	2	1.50E-02	lb/MMBtu	1.50E-02	2	1.50E-02	lb/MMBtu	1.50E-02	2	4.80E-02	lb/MMBtu	4.80E-02
Barium	3	0.0044	lb/ton[a]	5.20E-06	6	28.8	pg/J	6.69E-07	6	3.2	ng/J	7.44E-05
Benzo(a)anthracene	3	6.4E-06	lb/ton	7.53E-07								
Benzo(a)pyrene	3	3.0E-07	lb/ton	3.53E-08								
Bromine	3	0.00039	lb/ton	4.59E-05	6	3.0	pg/J	6.97E-07	6	0.34	ng/J	7.90E-04
Chrysene	3	3.0E-04	lb/ton	3.53E-05								
Copper - Maximum	4	1.48E-04	lb/MMBtu	1.48E-04	7	4.20E-05	lb/MMBtu	4.20E-05	8	1.71E-04	lb/MMBtu	1.71E-04
Copper - Annual	4	7.24E-05	lb/MMBtu	7.24E-05								
Indium	5	1.27E-04	lb/MMBtu	1.27E-04								
Iodine	2	1.8E-05	lb/ton	2.12E-06								
Isopropanol	1	9.2E-03	lb/MMBtu	9.20E-03								
Molybdenum	2	1.9E-04	lb/ton[a]	2.24E-07	6	21	pg/J	4.88E-07	6	0.38	ng/J	8.83E-06
PAH	1	5.9E-04	lb/MMBtu	5.90E-10								
Silver	1	140	lb/10_{12} Btu[a]	1.40E-06								
Thallium	1	ND		ND								
Tin	2	3.1E-05	lb/ton[a]	3.65E-08	6	142	pg/J	3.3E-06	6	0.38	ng/J	8.83E-06
Tungsten	2	1.1E-05	lb/ton[a]	1.29E-08								
Vanadium	2	1.2E-04	lb/ton[a]	1.41E-07								
Yttrium	2	5.6E-05	lb/ton[a]	6.59E-08								
Zirconium	2	3.5E-04	lb/ton[a]	4.12E-07								
Zinc	9	14,130	ppm	4.24E-04	6	28.8	pg/J	6.69E-07	6	1.5	ng/J	3.49E-05

[a] Uncontrolled emission factor; 99% control with ESP is assumed to calculate controlled emission factor.
ND = Non-detectable

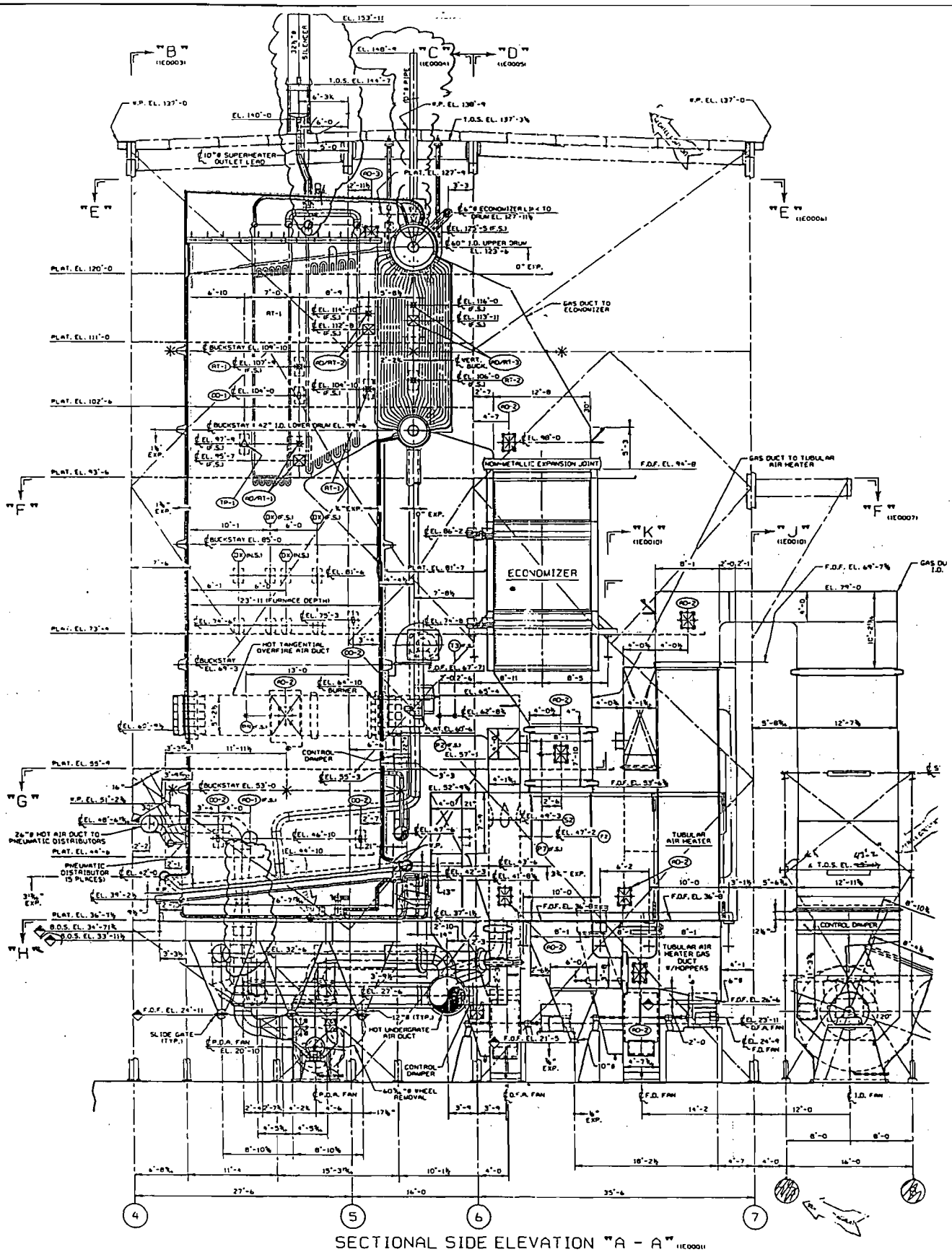
References

1. NCASI Technical Bulletin No. 650, June 1993.
2. Based on 25ppm NH3 in exhaust gases for biomass and No. 2 Fuel Oil; 65 ppm NH3 for coal.
3. AP-42, Tables 1.6-5 and 1.6-7.
4. Based on 3.0 % treated wood burning.
5. EPA PM/VOC Database updated October, 1989.
6. Emissions Assessment of Conventional Stationary Combustion Systems, Volume V, 1981. Based on uncontrolled spreader stoker design and then assuming 99% control from ESP if emitted as a particulate.
7. Toxic Air Pollutant Emission FActors - A Compilation for Selected Air Toxic Compounds and Sources, Second Edition EPA-450/2-90-011 (1990).
8. Estimating Emissions from Oil and Coal Combustion Sources EPA-450/2-89-001 (1989).
9. Air Toxics Emissions From Wood-Fired Boilers. C. Sassenrath, 1991 TAPPI Proceedings.

Conversions:
lb/10_{12} Btu x 10_{12} Btu/1,000,000 MMBtu = lb/MMBtu
lb/ton x ton/2000 lb x lb/4,250 BTU x 10_6 Btu/MMBtu = lb/MMBtu
pg/J x 2.324x10_{-6} (lb/MMBtu)/(pg/J)x (1 - 0.99) = 2.324-$_8$ lb/MMBtu
ng/J x 2.324x10_{-3} (lb/MMBtu)/(ng/J)x (1 - 0.99) = 2.324-$_5$ lb/MMBtu

APPENDIX B

DRAWINGS



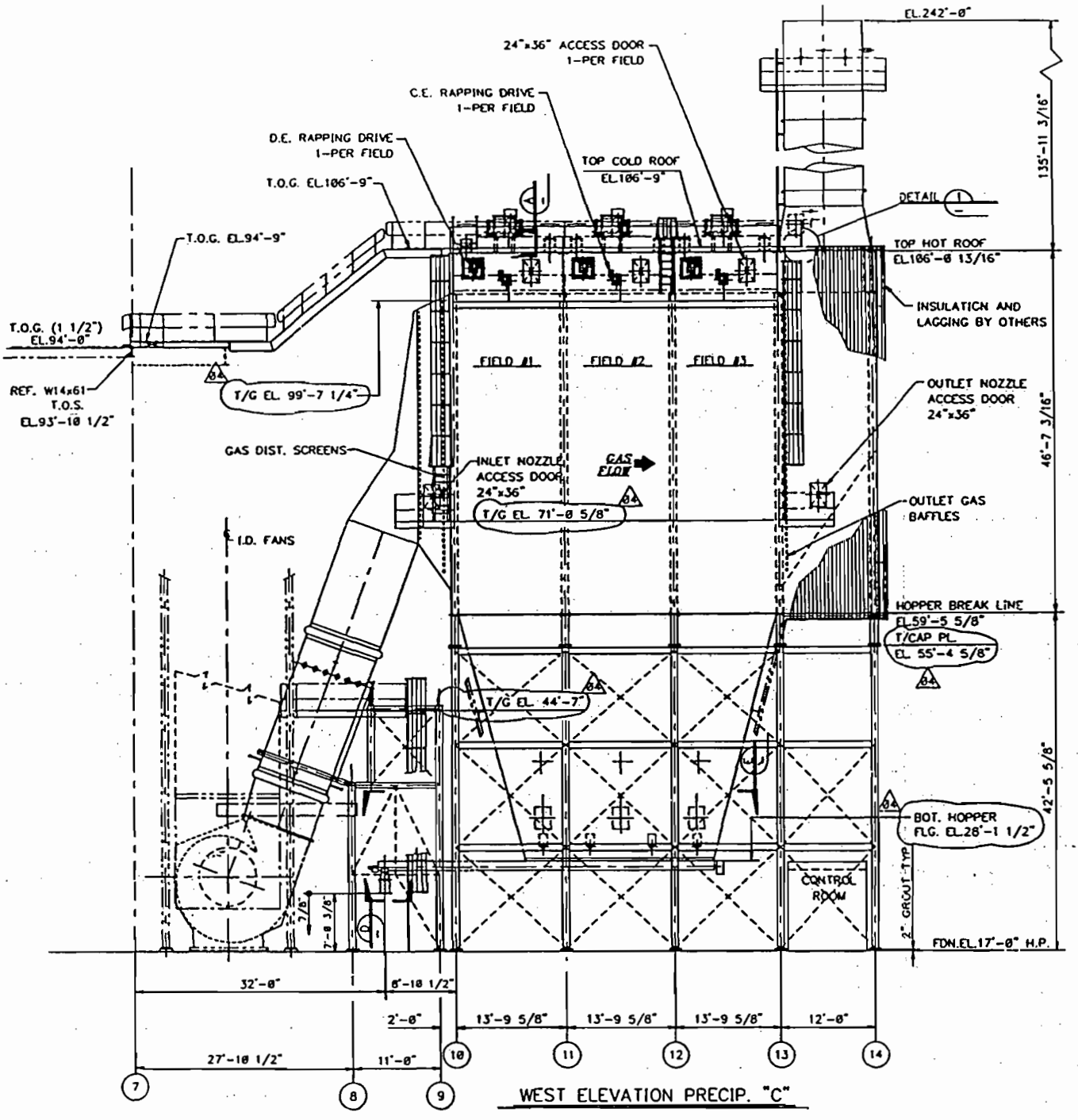
SECTIONAL SIDE ELEVATION "A - A"

LOOKING WEST @ CENTERLINE OF UNIT
COLUMN LINES "D" & "F" BRACING SHOWN

General Arrangement View of Boiler

Source: ABB Environmental Systems, 1994.

KBN

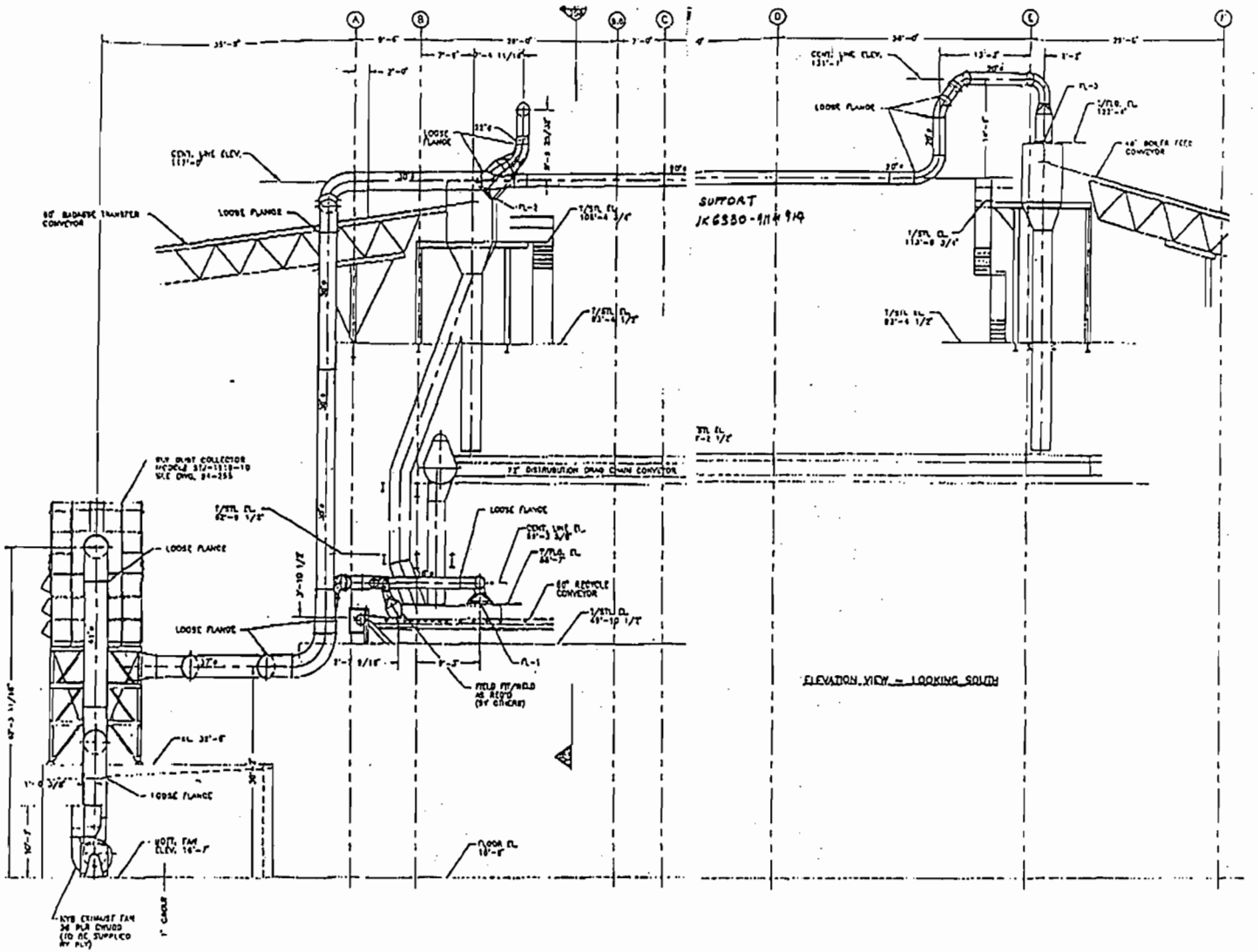


WEST ELEVATION PRECIP. "C"

East Elevation of ESPs with Stack

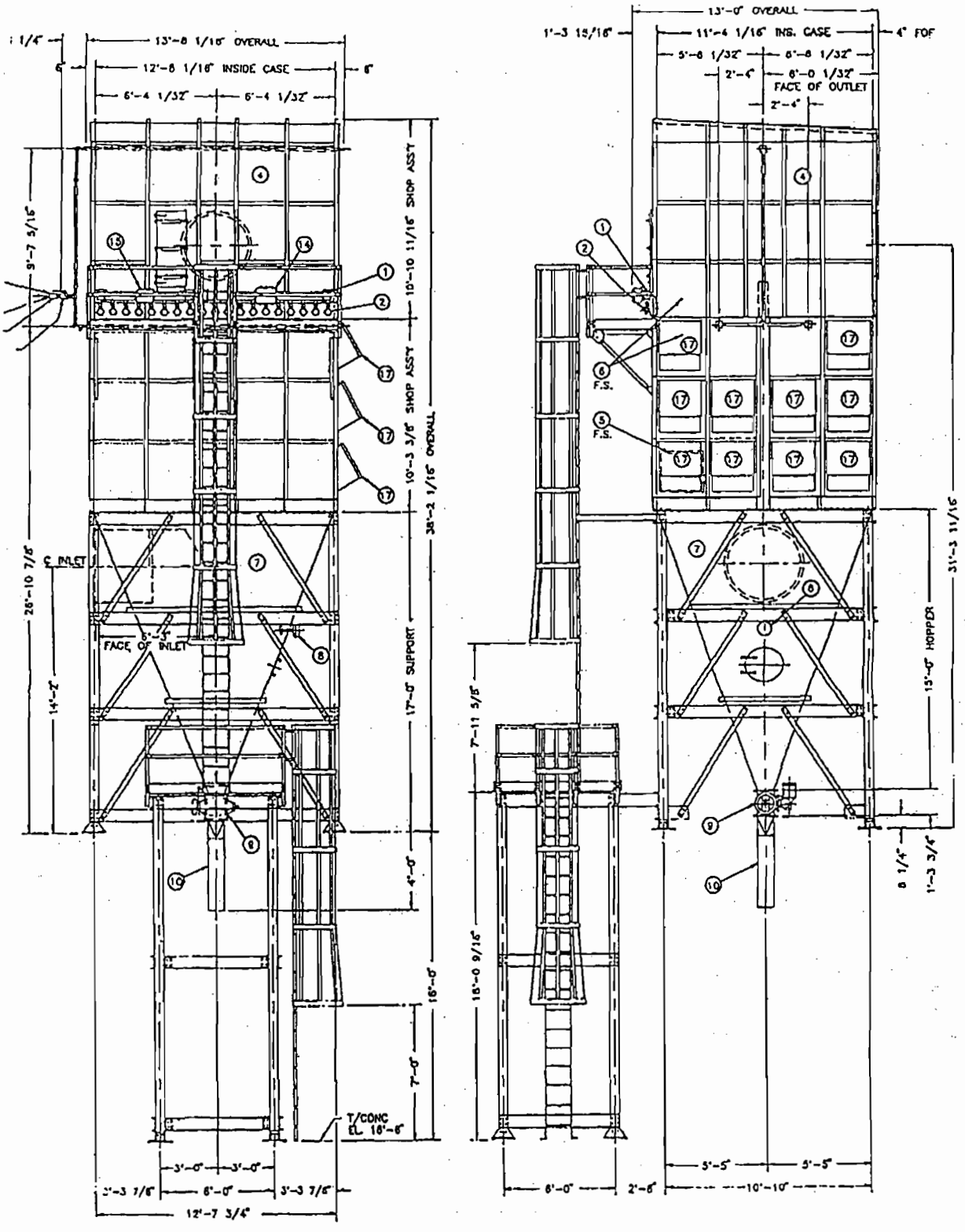
Source: ABB Environmental Systems, 1994.

KBN
A GOLDER ASSOCIATES COMPANY



Schematic of Dust Collector at Boiler House

Source: Sly, Inc., 1994.



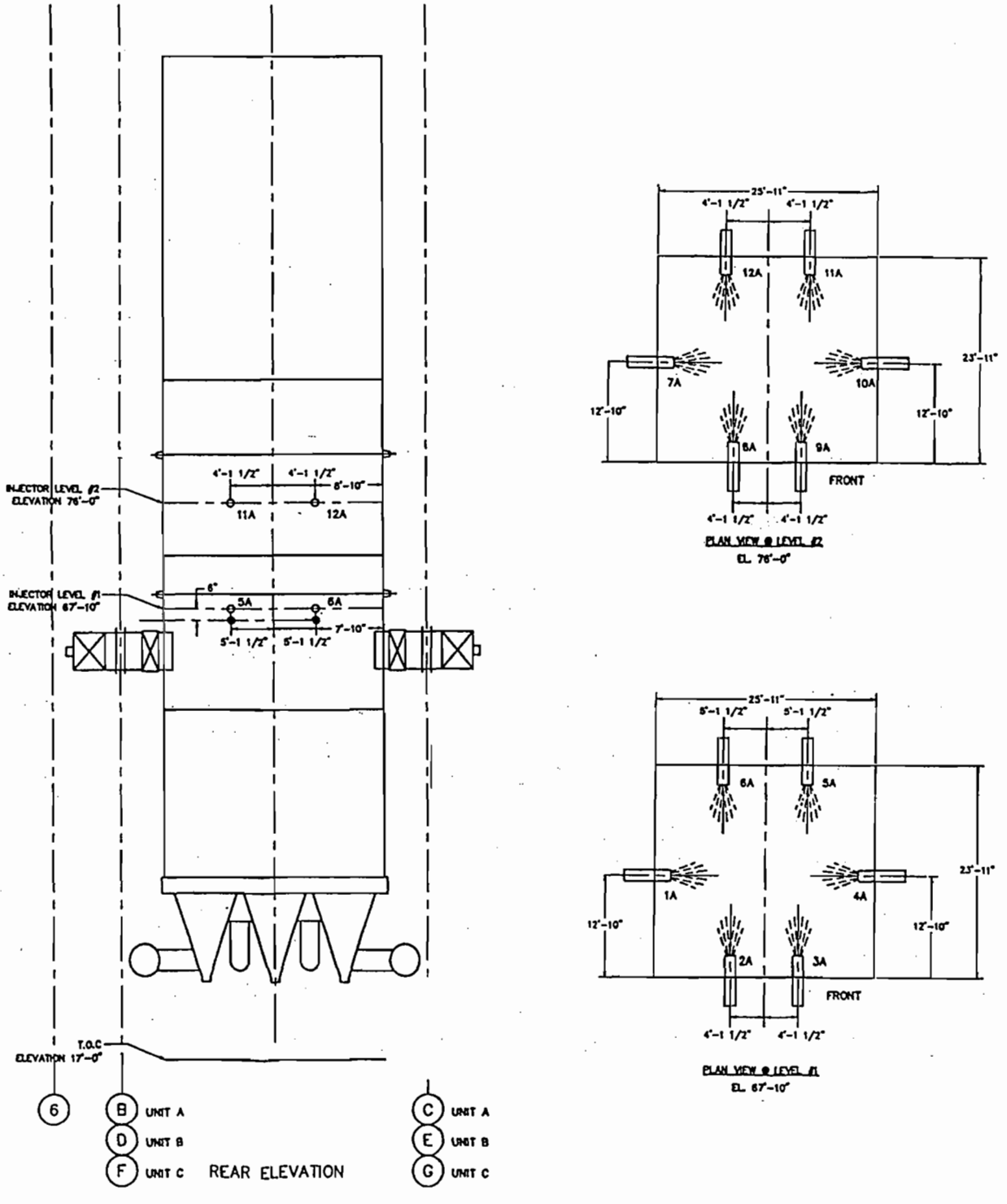
FRONT ELEVATION
LOOKING NORTH

END ELEVATION
LOOKING WEST

Elevation Views of Dust Collector at Boiler House

Source: Sly, Inc., 1994.

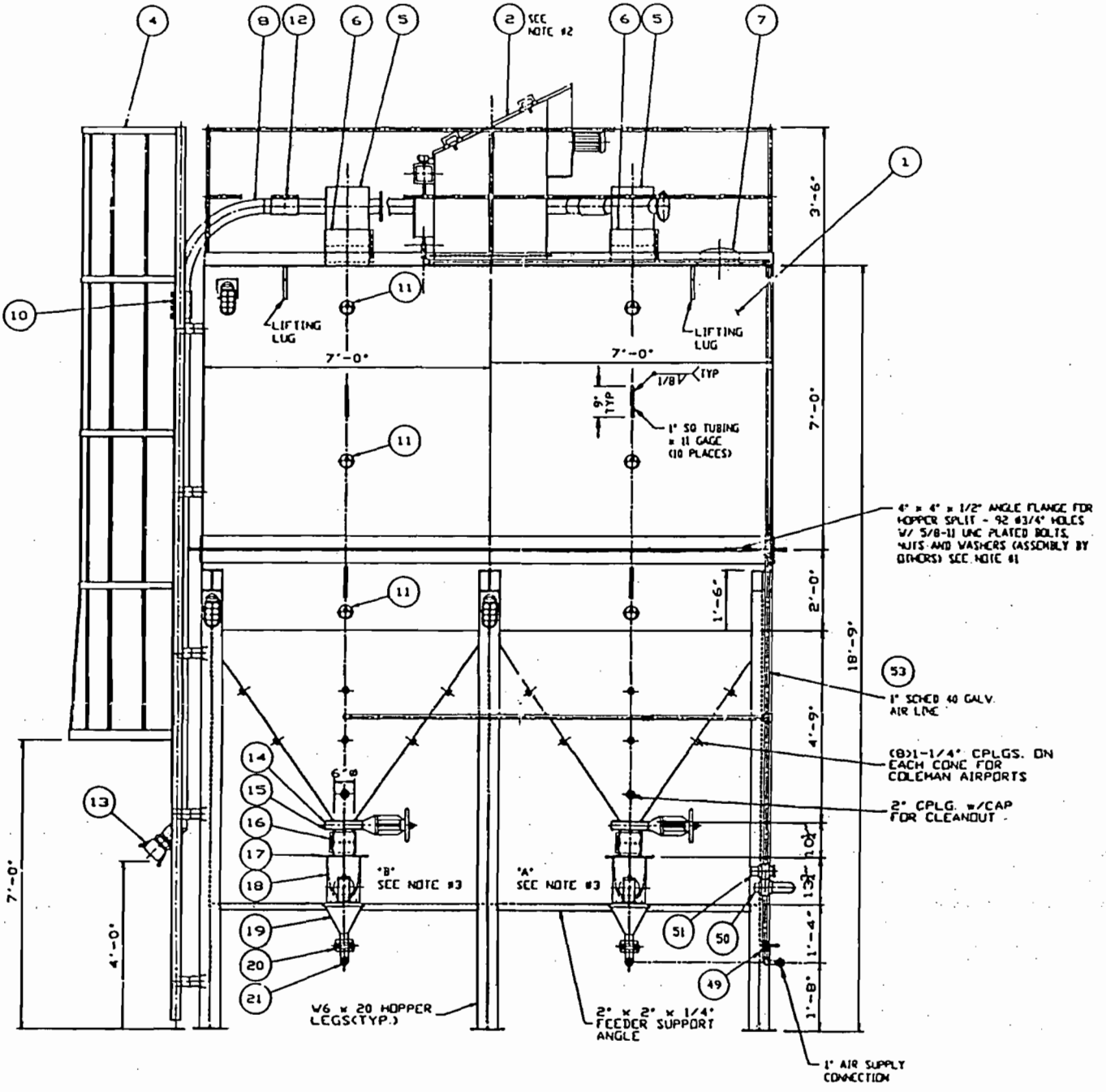
KBN



Schematic of Urea Injection Points

Source: Nalco FuelTech, 1994.

KBN
A GOLDER ASSOCIATES COMPANY

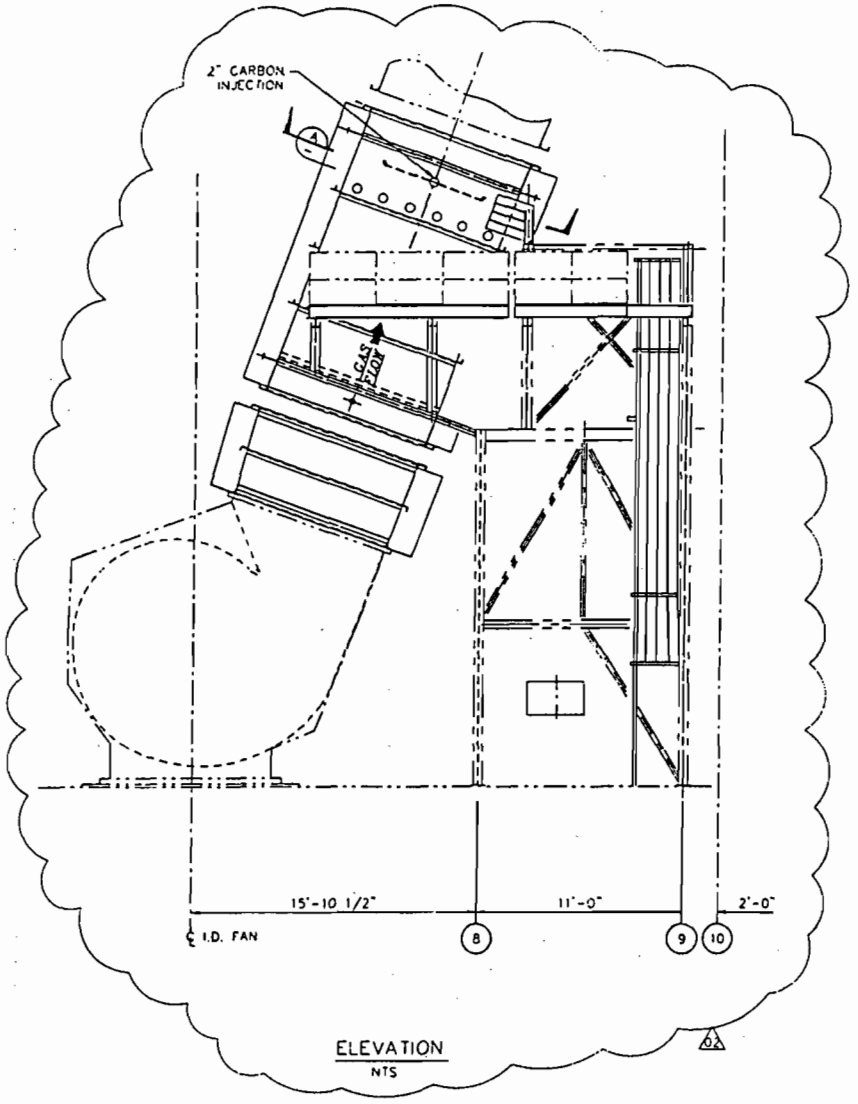


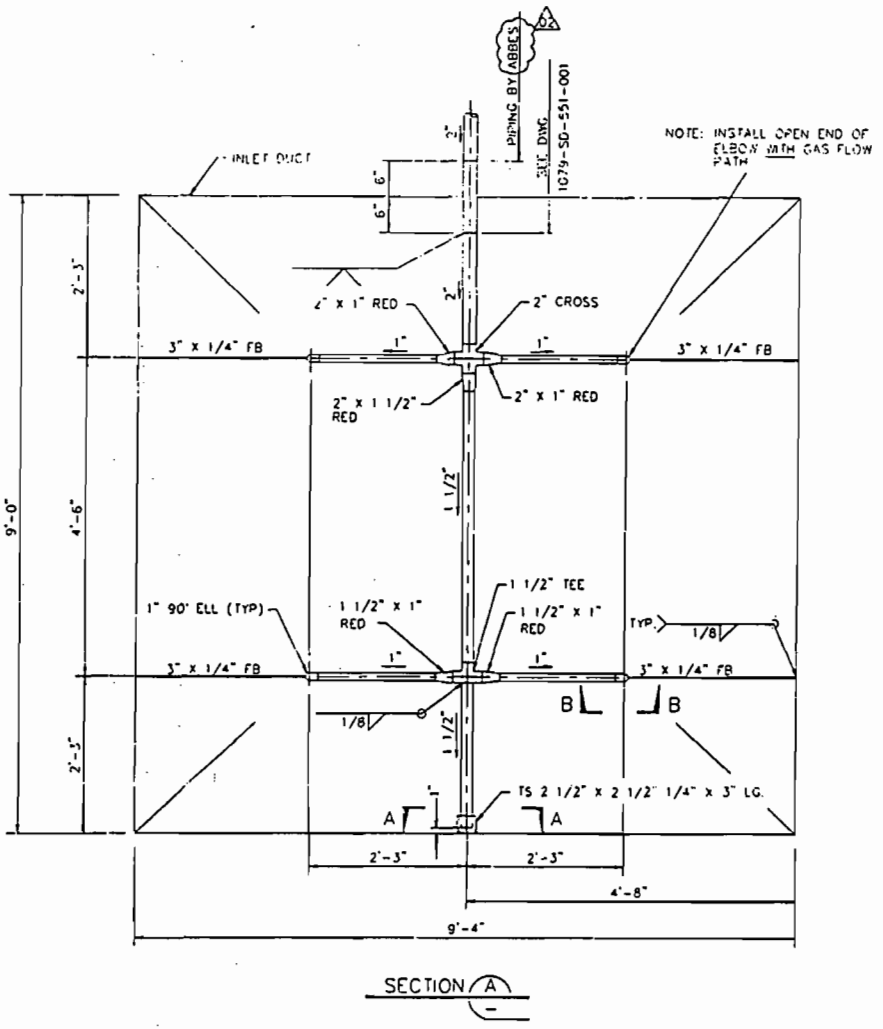
WEST ELEVATION

West Elevation of Carbon Storage Silos

Source: Chemco Equipment Co., 1994.

KBN

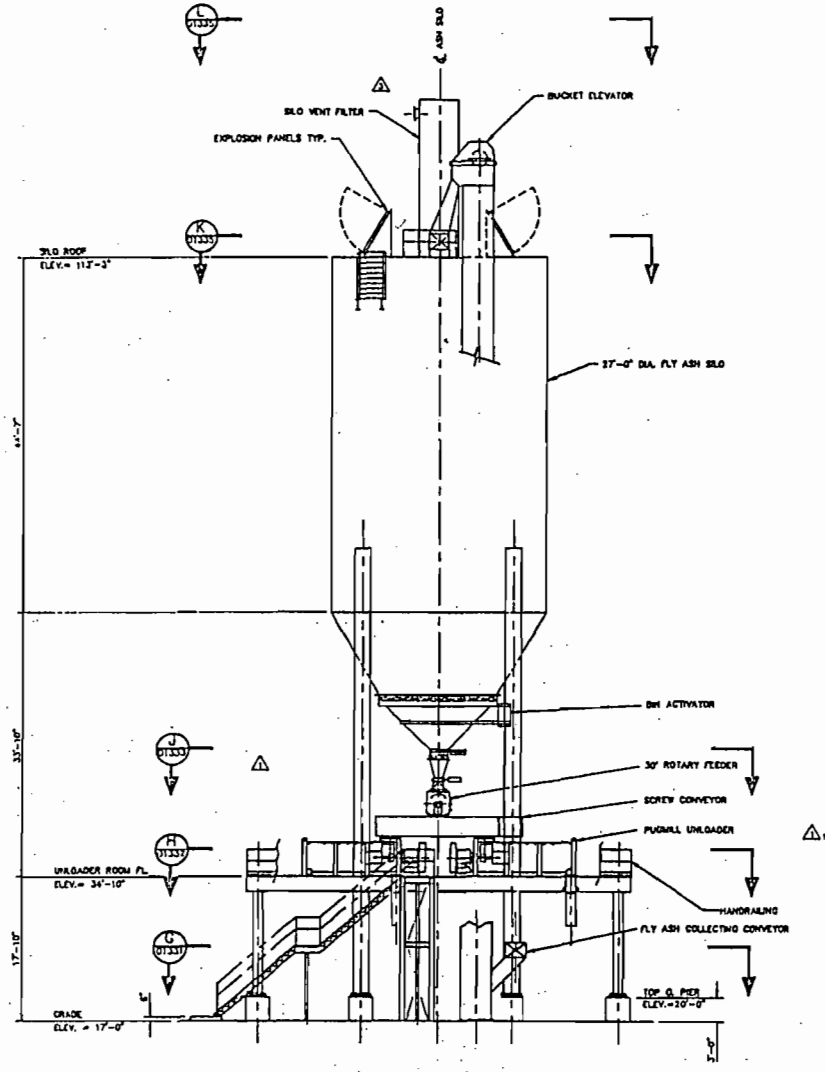




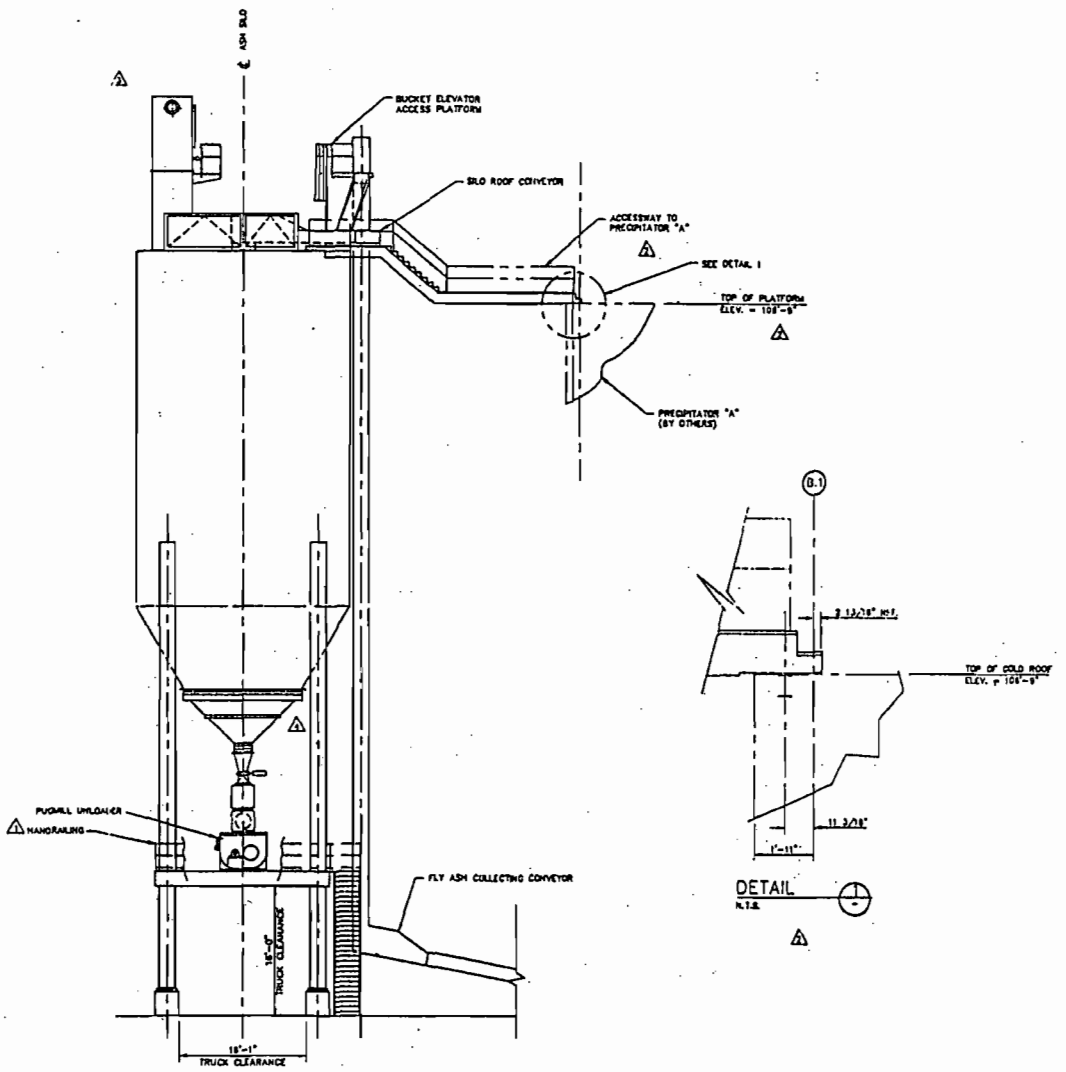
Carbon Injection Configuration for Mercury Control

Source: ABB Environmental Systems, 1994.

KBN



ELEVATION LOOKING WEST
ELEVATION

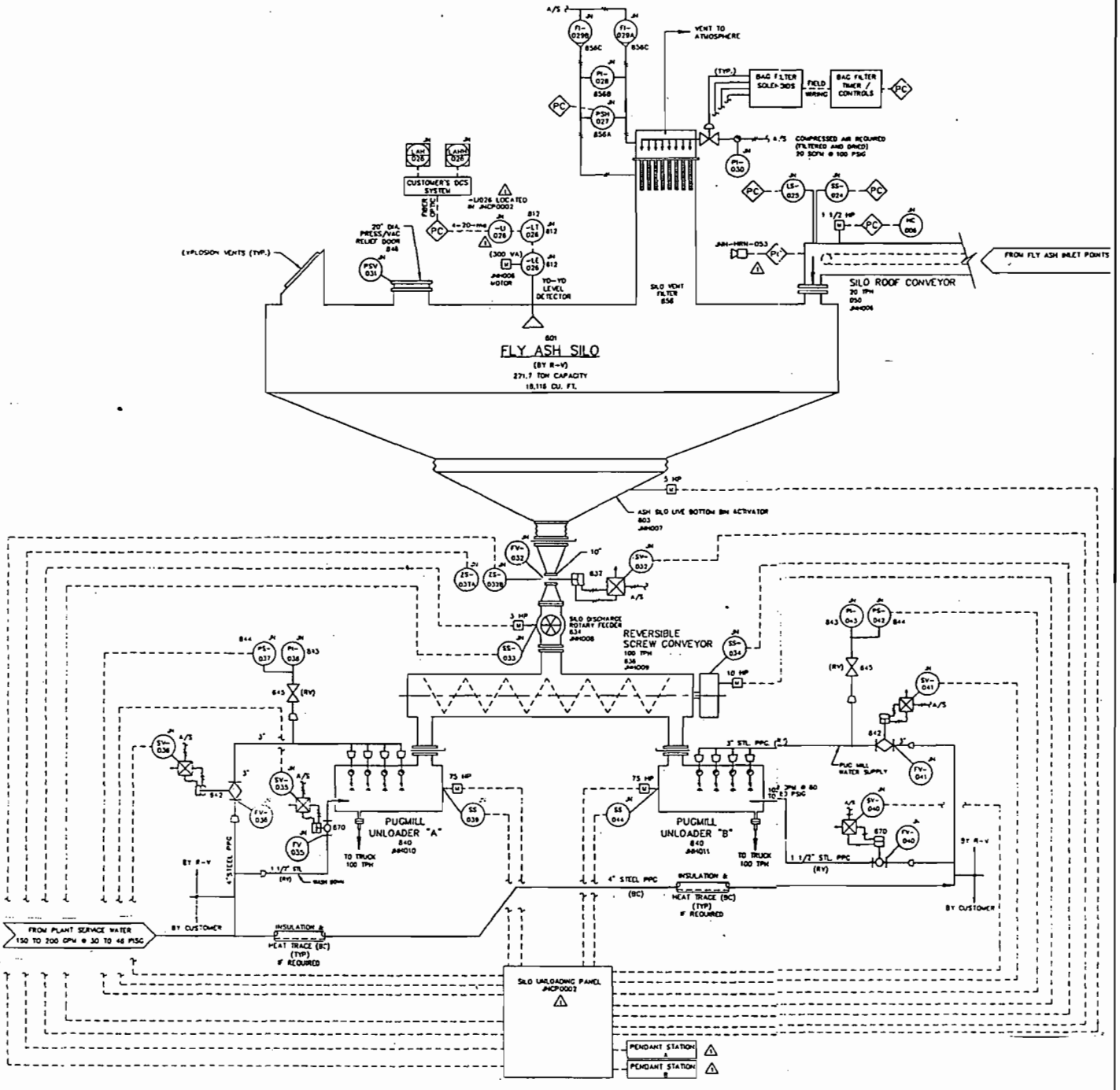


ELEVATION LOOKING NORTH
ELEVATION

General Arrangement of Fly Ash System

Source: RV Industries, Inc., 1994.

KBN
A GOLDER ASSOCIATES COMPANY



Fly Ash Silo

Source: RV Industries, Inc., 1994.

KBN

APPENDIX C

FUGITIVE DUST CALCULATIONS

Table C-1. Estimation of Emission Factors and Rates For Vehicle Traffic on Unpaved Roads
Okeelanta Power Generation Facility

General Data	Pile Mainten. Front-end loader	Pile Mainten. Front-end loader	Pile Mainten. Front-end loader
Vehicle Data			
Description	Biomass	Coal	Tire-Derived Fuel
Vehicle Speed (S), mph- Average	5	5	5
Vehicle weight (W), tons- Loaded	27	27	27
- Unloaded	9	9	9
- Average	18	18	18
Vehicle number of wheels (w)	4	4	4
Vehicle miles traveled (VMT)- Annual	21,900 a	4,800 b	21,900 b
General/ Site Characteristics			
Days of precipitation greater than or equal to 0.01 inch (p)- Annual	120	120	120
Silt content (s), %	5	5	5
Particle size multiplier, PM (k)	1.00	1.00	1.00
Particle size multiplier, PM10 (k)	0.35	0.35	0.35
Emission Control Data			
Emission control method	Watering	Watering	Watering
Emission control removal efficiency, %	50	50	50
Calculated PM Emission Factor (EF)			
Uncontrolled EF, lb/VMT - Annual	0.96	0.96	0.96
Controlled (Final) EF,lb/VMT- Annual	0.48	0.48	0.48
Calculated PM10 Emission Factor (EF)			
Uncontrolled EF, lb/VMT - Annual	0.34	0.34	0.34
Controlled (Final) EF,lb/VMT- Annual	0.17	0.17	0.17
Estimated Emission Rate (ER)			
PM ER, lb/hr	2.41	2.41	11.00
TPY	5.278	1.157	5.278
PM10 ER, lb/hr	0.84	0.84	3.85
TPY	1.847	0.405	1.847

Emission Factor (EF) Equations

Uncontrolled EF (UEF) Equation:

UEF(lb/VMT) = k x 5.9 x (s/12) x (S/30) x (W/3)^0.7 x (w/4)^0.5 x ((365 - p)/365)

Controlled (Final) EF (CEF) Equation:

CEF(lb/VMT) = UEF (lb/ton) x (100 - Removal efficiency (%))

a Based on vehicle operating 12 hrs/day, 365 days/yr.
b Based on vehicle operating 8 hrs/day, 120 days/yr.

Source: AP-42, Section 13.2.1, Unpaved Roads, July, 1994.

Spreadsheet as of 11:52:07 on 03-28-1995

ut Filename: coalpile.epc
.nventory area: Osceola Power L.P.
Source ID: Coalpile Filename: A:\Coalpile.EPC

Emissions estimate year: 94
Based on wind data year: 94
Fastest mile filename: westp94.met
System of units: English
Source life (inclusive days of year)
Start day: 1
End day: 365
F=flat area, PC=conical pile, PO=oval pile: PC
Pile height (ft) :30
Pile diameter (ft) :500
Area (sq ft): 197658
Material description: Coal
Percent moisture content: 4.5
Percent silt content: 2.2
Threshold friction velocity, U*t, (cm/sec): 112
Roughness height (cm): 0.1
Mode (mm) of size distribution 3.533677# (# denotes calculated value)
Lc value (cf. Fig. 6-3 of reference manual):

Frequency of disturbance information :
/Ur = .9 -- subarea # 1 -- 50 % of regime disturbed every 4 day(s)
./Ur = .6 -- subarea # 1 -- 50 % of regime disturbed every 4 day(s)
Us/Ur = .2 -- subarea # 1 -- 50 % of regime disturbed every 4 day(s)

Total emissions emitted over the period: 95652.99 g

Threshold velocity = 112 cm/s
Control: Effective windspeed ratio = 1

Us/Ur = .9 Disturbance interval = 4 days

Period 9 - 13 high on 10 1.2069 m/s 1438.047 g emitted
Period 13 - 17 high on 16 1.12644 m/s 90.01624 g emitted
Period 33 - 37 high on 34 1.16667 m/s 712.3215 g emitted
Period 41 - 45 high on 45 1.32759 m/s 4235.759 g emitted
Period 45 - 49 high on 46 1.40805 m/s 6618.004 g emitted
Period 61 - 65 high on 62 1.85058 m/s 27114.97 g emitted
Period 65 - 69 high on 68 1.24713 m/s 2267.197 g emitted
Period 73 - 77 high on 77 1.16667 m/s 712.3215 g emitted
Period 77 - 81 high on 77 1.16667 m/s 712.3215 g emitted
Period 85 - 89 high on 88 1.12644 m/s 90.01624 g emitted
-iod 89 - 93 high on 93 1.24713 m/s 2267.197 g emitted
od 93 - 97 high on 93 1.24713 m/s 2267.197 g emitted
riod 137 - 141 high on 141 1.24713 m/s 2267.197 g emitted
Period 141 - 145 high on 141 1.24713 m/s 2267.197 g emitted
Period 165 - 169 high on 168 1.16667 m/s 712.3215 g emitted
Period 189 - 193 high on 193 1.56897 m/s 12623.55 g emitted

Period 193 - 197 high on 193 1.56897 m/s 12623.55 g emitted
Period 205 - 209 high on 207 1.2069 m/s 1438.047 g emitted
Period 209 - 213 high on 212 1.32759 m/s 4235.759 g emitted
Period 321 - 325 high on 323 1.2069 m/s 1438.047 g emitted
Period 329 - 333 high on 333 1.12644 m/s 90.01624 g emitted
Period 333 - 337 high on 333 1.12644 m/s 90.01624 g emitted
Period 349 - 353 high on 353 1.16667 m/s 712.3215 g emitted
Period 353 - 357 high on 353 1.16667 m/s 712.3215 g emitted

Summary for Us/Ur = .9 Disturbance Interval = 4
87735.69 Total g emitted over 1 - 365

Us/Ur = .6 Disturbance interval = 4 days

Period 61 - 65 high on 62 1.23372 m/s 7917.303 g emitted

Summary for Us/Ur = .6 Disturbance Interval = 4
7917.303 Total g emitted over 1 - 365

Us/Ur = .2 Disturbance interval = 4 days

Summary for Us/Ur = .2 Disturbance Interval = 4
0 Total g emitted over 1 - 365

Summary for entire source: 95652.99 g emitted over period 1 - 365
NOTE: For a variety of reasons given in the user manual, the erosion estimates presented above may be considered as CONSERVATIVELY HIGH. See the user manual for more information.

Spreadsheet as of 11:57:11 on 03-28-1995

Input Filename: bagpile.epc
Inventory area: Osceola Power L.P.
Source ID: Bagpile Filename: A:\Bagpile.EPC

Emissions estimate year: 94
Based on wind data year: 94
Fastest mile filename: westp94.met
System of units: English
Source life (inclusive days of year)
Start day: 1
End day: 365
F=flat area, PC=conical pile, PO=oval pile: PC
Pile height (ft) :30
Pile diameter (ft) :566
Area (sq ft): 252888.5
Material description: Bagasse/WW
Percent moisture content: 37
Percent silt content: 2.2
Threshold friction velocity, U*t, (cm/sec): 112
Roughness height (cm): 0.3
Mode (mm) of size distribution 3.533677# (# denotes calculated value)
Lc value (cf. Fig. 6-3 of reference manual):

Frequency of disturbance information :
'Ur = .9 -- subarea # 1 -- 20 % of regime disturbed every 1 day(s)
/Ur = .6 -- subarea # 1 -- 20 % of regime disturbed every 1 day(s)
Us/Ur = .2 -- subarea # 1 -- 20 % of regime disturbed every 1 day(s)

Total emissions emitted over the period: 79243.23 g

Threshold velocity = 112 cm/s
Control: Effective windspeed ratio = 1

Us/Ur = .9 Disturbance interval = 1 days

Period 9 - 10 high on 10 1.2069 m/s 735.9493 g emitted
Period 10 - 11 high on 10 1.2069 m/s 735.9493 g emitted
Period 15 - 16 high on 16 1.12644 m/s 46.0676 g emitted
Period 16 - 17 high on 16 1.12644 m/s 46.0676 g emitted
Period 33 - 34 high on 34 1.16667 m/s 364.5446 g emitted
Period 34 - 35 high on 34 1.16667 m/s 364.5446 g emitted
Period 44 - 45 high on 45 1.32759 m/s 2167.734 g emitted
Period 45 - 46 high on 46 1.40805 m/s 3386.895 g emitted
Period 46 - 47 high on 46 1.40805 m/s 3386.895 g emitted
Period 61 - 62 high on 62 1.85058 m/s 13876.62 g emitted
Period 62 - 63 high on 62 1.85058 m/s 13876.62 g emitted
Period 67 - 68 high on 68 1.24713 m/s 1160.283 g emitted
Period 68 - 69 high on 68 1.24713 m/s 1160.283 g emitted
Period 76 - 77 high on 77 1.16667 m/s 364.5446 g emitted
Period 77 - 78 high on 77 1.16667 m/s 364.5446 g emitted
Period 87 - 88 high on 88 1.12644 m/s 46.0676 g emitted

```
Period  88 - 89  high on  88   1.12644  m/s  46.0676  g emitted
Period  92 - 93  high on  93   1.24713  m/s  1160.283  g emitted
Period  93 - 94  high on  93   1.24713  m/s  1160.283  g emitted
Period  94 - 95  high on  94   1.16667  m/s  364.5446  g emitted
 iod  139 - 140  high on  140   1.2069  m/s  735.9493  g emitted
 riod  140 - 141  high on  141   1.24713  m/s  1160.283  g emitted
Period  141 - 142  high on  141   1.24713  m/s  1160.283  g emitted
Period  142 - 143  high on  142   1.2069  m/s  735.9493  g emitted
Period  167 - 168  high on  168   1.16667  m/s  364.5446  g emitted
Period  168 - 169  high on  168   1.16667  m/s  364.5446  g emitted
Period  191 - 192  high on  192   1.2069  m/s  735.9493  g emitted
Period  192 - 193  high on  193   1.56897  m/s  6460.352  g emitted
Period  193 - 194  high on  193   1.56897  m/s  6460.352  g emitted
Period  206 - 207  high on  207   1.2069  m/s  735.9493  g emitted
Period  207 - 208  high on  207   1.2069  m/s  735.9493  g emitted
Period  211 - 212  high on  212   1.32759  m/s  2167.734  g emitted
Period  212 - 213  high on  212   1.32759  m/s  2167.734  g emitted
Period  322 - 323  high on  323   1.2069  m/s  735.9493  g emitted
Period  323 - 324  high on  323   1.2069  m/s  735.9493  g emitted
Period  332 - 333  high on  333   1.12644  m/s  46.0676  g emitted
Period  333 - 334  high on  333   1.12644  m/s  46.0676  g emitted
Period  352 - 353  high on  353   1.16667  m/s  364.5446  g emitted
Period  353 - 354  high on  353   1.16667  m/s  364.5446  g emitted
Period  354 - 355  high on  354   1.12644  m/s  46.0676  g emitted

Summary for Us/Ur =  .9      Disturbance Interval =  1
 71139.55  Total g emitted over  1  -  365
------------------------------------------------------------------
Us/Ur =  .6    Disturbance interval = 1  days

 .od  61 - 62  high on  62   1.23372  m/s  4051.837  g emitted
Period  62 - 63  high on  62   1.23372  m/s  4051.837  g emitted

Summary for Us/Ur =  .6      Disturbance Interval =  1
 8103.673  Total g emitted over  1  -  365
------------------------------------------------------------------
Us/Ur =  .2    Disturbance interval = 1  days


Summary for Us/Ur =  .2      Disturbance Interval =  1
 0  Total g emitted over  1  -  365
------------------------------------------------------------------
Summary for entire source:  79243.23   g emitted over period  1  -  365
NOTE: For a variety of reasons given in the user manual, the erosion estimates
      presented above may be considered as CONSERVATIVELY HIGH.  See the
      user manual for more information.
```

APPENDIX D

TANKS PROGRAM OUTPUT

TANK IDENTIFICATION AND PHYSICAL CHARACTERISTICS

Identification

Identification No.:	Fuel Tank
City:	South Bay
State:	FL
Company:	Okeelanta Power
Type of Tank:	Vertical Fixed Roof

Tank Dimensions

Shell Height (ft):	24
Diameter (ft):	20
Liquid Height (ft):	24
Avg. Liquid Height (ft):	12
Volume (gallons):	50000
Turnovers:	392
Net Throughput (gal/yr):	19600000

Paint Characteristics

Shell Color/Shade:	Gray/Light
Shell Condition:	Good
Roof Color/Shade:	Gray/Light
Roof Condition:	Good

Roof Characteristics

Type:	Dome
Height (ft):	0.00
Radius (ft) (Dome Roof):	20.00
Slope (ft/ft) (Cone Roof):	0.0000

Breather Vent Settings

Vacuum Setting (psig):	-0.03
Pressure Setting (psig):	0.03

Meteorological Data Used in Emission Calculations: West Palm Beach, Florida

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Distillate fuel oil no. 2	All	81.99	73.58	90.40	76.84	0.0130	0.0100	0.0167	130.000			130.00	Option 4: A=12.1010, B=8907.0

Annual Emissions Report

Liquid Contents	Losses (lbs.): Standing	Withdrawal	Total
Distillate fuel oil no. 2	25.81	199.52	225.33
Total:	25.81	199.52	225.33

APPENDIX E

BASIS FOR SULFUR CAPTURE WHEN BURNING TDF AND BIOMASS IN COMBINATION

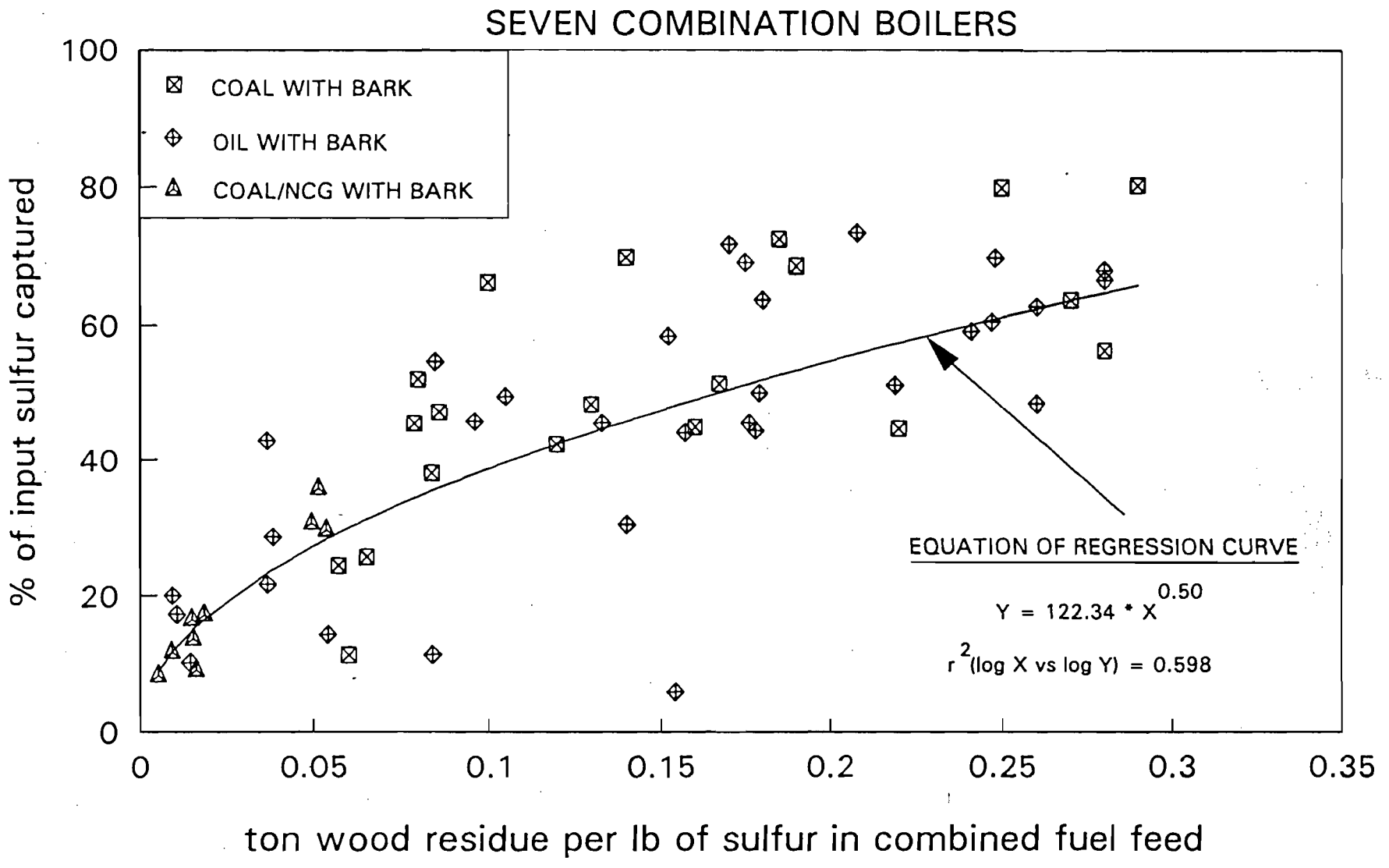


FIGURE 11 SUMMARY OF GAS-SOLID SULFUR CAPTURE IN COMBINATION BOILERS

ncasi technical bulletin

NATIONAL COUNCIL OF THE PAPER INDUSTRY FOR AIR AND STREAM IMPROVEMENT, INC., 260 MADISON AVENUE, NEW YORK, N.Y. 10016

SULFUR CAPTURE IN COMBINATION BARK BOILERS

TECHNICAL BULLETIN NO. 640

SEPTEMBER 1992

APPENDIX E

OKEELANTA POWER COGENERATION FACILITY
BASIS FOR SULFUR CAPTURE WHEN BURNING TDF/BIOMASS

---

1. WORST-CASE, SHORT-TERM CONDITION
   25% TDF, 75% biomass, weight basis
   Tons wood burned = 375 MMBtu/hr ÷ 5,500 Btu/lb = 34.09 TPH

   Sulfur in fuel:
   Biomass = 375 MMBtu/hr x 0.10 lb/MMBtu = 37.5 lb/hr
   TDF = 340 MMBtu/hr ÷ 15,500 Btu/lb = 21,935 lb/hr
   = 21,935 lb/hr x 1.23% S = 269.8 lb/hr
   Total = 37.5 + 269.8 = 307.3 lb/hr

   Tons wood/lb S in fuel = 34.09 ÷ 307.3 = 0.11

   Sulfur Capture = $122.34 \times (0.11)^{0.5} = 41\%$

2. ANNUAL AVERAGE CONDITIONS
   9.1% TDF, 90.9% biomass, weight basis
   Assume all biomass utilized is wood waste.

   From Table 2-2:
   Wood waste = 815,455 TPY; 8.97×10^{12} Btu/yr
   TDF = 81,613 TPY

   Sulfur in fuel:
   Wood waste = 8.97×10^{12} Btu/yr x 0.02 lb/MMBtu = 179,400 lb/yr
   TDF = 81,613 TPY x 2,000 lb/ton x 1.23% = 2,007,680 lb/yr
   Total = 179,400 + 2,007,680 = 2,187,080 lb/yr

   Tons wood/lb S in fuel = 815,455 ÷ 2,187,080 = 0.373

   Sulfur Capture = $122.34 \times (0.373)^{0.5} = 75\%$

A copy of this letter shall be filed with the referenced permit and shall become part of the permit.

Sincerely,

for Howard L. Rhodes, Director
Division of Air Resources
Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this PERMIT AMENDMENT was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 9-5-97 to the person(s) listed:

Mr. Dennis Space, Okeelanta Power, LP*
Mr. David A. Buff, Golder Associates
Mr. David Knowles, SD
Mr. Brian Beals, EPA
Mr. John Bunyak, NPS
Mr. James Stormer, Palm Beach Co.
Mr. Isidore Goldman, SED
Mr. Dan Thompson, Esq.

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 Jolen 9-5-97
(clerk) (Date)

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

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 Space, Gen. Mgr.
Okeelanta Power, LP
PO Box 8
South Bay, Fl
33493

4a. Article Number
P 265 659 447

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

7. Date of Delivery

5. Received By: *(Print Name)*

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

6. Signature: *(Addressee or Agent)*
X G. Ambras

PS Form **3811**, December 1994 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

P 265 659 447

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 Okeelanta	
Post Office, State, & ZIP Code SB, 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 95-97	

0990332-003 AC
TDF

PS Form **3800**, April 1995

Memorandum

Florida Department of
Environmental Protection

O.K. send out
+ copy files.
AL

TO: Howard L. Rhodes

THRU: ~~Clair Fancy~~
Al Linero approved 6/25

FROM: Willard Hanks

DATE: June 25, 1997

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

Attached for approval and signature is a letter that will approve the tire derived fuel performance test protocol proposed by Okeelanta Power L.P. Approval of the test protocol is required by Specific Condition No. 19 of amended permit number AC50-2191413/PSD-FL-196 for Okeelanta Power's cogeneration plant located near South Bay, Palm Beach County.

This amendment allows emission and ash analysis data to be gathered while burning a blend of wood chips and tire derived fuel (TDF) to confirm this fuel can be burned in compliance with the existing permit and the Department's regulations. If data collected during the test burn confirms the fuel blend can be burned in compliance with all requirements, the construction permit will be amended again to allow this blended fuel to be burn on a continuous basis. Emission controls consist of electrostatic precipitators for control of particulate matter, selective non-catalytic reduction for nitrogen oxides, and carbon injection for mercury. The test may provide the Department with reasonable assurance that the plant can burn TDF without contravening Department standards, rules or permit conditions.

I recommend your approval and signature of the attached letter on the test protocol.

CHF/wh

Attachment

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:
James M. Meriwether, Env Mgr
Osceola Power, LP
P O Box 8
South Bay, Fl
33493

4a. Article Number P 265 659 231

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

7. Date of Delivery 7/2/97

5. Received By: *(Print Name)*

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

6. Signature: *(Addressee or Agent)*
X Ambrus

PS Form **3811**, Decembe

Domestic Return Receipt

Thank you for using Return Receipt Service.

P 265 659 231

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

Sent to James M Meriwether	
Street & Number Osceola 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 6-24-97	

0990332-005-AC
PSO-FI-196

PS Form **3800**, April 1995

Fold at line over top of envelope to

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 265 659 215

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

7. Date of Delivery
5-20-97

5. Received By: *(Print Name)*

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

6. Signature: *(Addressee or Agent)*
X G. Ambrus

PS Form **3811,** December 1994 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

P 265 659 215

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 0990332-003-AC 5-13-97 Date Ext.	

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

April 30, 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

Re Osceola Power, L.P. PSD-FL-197D 0990331-003-AC
Okeelanta Power, L.P. PSD-FL196D 0990332-003-AC

Dear Mr. Buff:

The Bureau of Air Regulation received your requests dated April 23, 1997 to extend the expiration dates of the above listed permits to allow time to conduct the tire derived fuel (TDF) test burn. Before we can begin processing these requests, we will need a $50 processing fee for each permit extension ($100 total). If you have any questions, please call Willard Hanks at (904) 488-1344.

Sincerely,

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

AAL/wh

cc: Mr. Don Schaberg, OsPLP
Mr. Dennis Space, OkPLP

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. DAVID A. Buff, P.E.
GOLDER ASSOCIATES
6241 NW 23rd St. Suite 500
GAINESville, FL 32653-1500

4a. Article Number
P 265 659 198

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

7. Date of Delivery
5/2/97

5. Received By: *(Print Name)*

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

6. Signature: *(Addressee or Agent)*
X M. Reinert

PS Form **3811,** December 1994 Domestic Return Receipt

Thank you for using Return Receipt Service.

P 265 659 198

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

Sent to DAVID A. BUFF	
Street & Number 6241 NW 23rd St. Ste 500	
Post Office, State, & ZIP Code GAINESville, FL 32653-1500	
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 4-30-97	

Fee request
Oscoda/Okaloosa 197D/196D

PS Form **3800,** April 1995

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

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 Space, Gen. Mgr.
OKeelanta Power, LP
PO Box 8
South Bay, FL
33493

4a. Article Number
P 265 659 149

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

7. Date of Delivery
1/27/97

5. Received By: *(Print Name)*

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

6. Signature: *(Addressee or Agent)*
X Gizella Ambrus

PS Form **3811**, December 1994 Domestic Return Receipt

Thank you for using Return Receipt Service.

P 265 659 149

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

Sent to Dennis Space	
Street & Number OKeelanta	
Post Office, State, & ZIP Code South Bay, FL	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date PSD-FL-196 1-22-97	

PS Form **3800**, April 1995

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/he is Class Adv Mgr 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 permit/Okeelanta --- in the _____ Court, was published in said newspaper in the issues of December 24, 1996

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 December A.D. 1996

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.

Karen M. McLinton, Notary Public

Personally known XX or Produced Identification _____

Type of Identification Produced _____

No. 272383
LEGAL NOTICE
PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AMENDMENT
STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DRAFT Permit Amendment No: 0990332-003-AC, (PSD-FL-198A)
Okeelanta Cogeneretion Plant
Palm Beech County

The Department of Environmentel Protection (Department) givens notice of its intent to issue en air construction permit smendment to Okeelente Power Limited Partnership to conduct e sixty (60) dey performence test while burning e blend of Tire Derived Fuel (TDF) with begasse end/or wood westes at the Cogeneretion Plant loceted neer South Bay, Palm Beech County. A Best Available Control Technology (BACT) determination was not required for sny pollutants pursuent to Rule 62-212.400, F.A.C., snd 40 CFR 52.21, Prevention of Significent Deterioration (PSD). The amendment will not cause a violetion of any state or federal ambient air quality standerds or increments. The applicant's name snd address are: Okeelante Power LP, Post Office Box 8, South Bay, Florida 33493.

The plant is already permitted to burn bagasse and wood westes as well as coel. Burning TDF as plenned is not expected to significantly increase emissions compared with burning coal as permitted. Emission controls consist of electrostatic precipitstors for control of particulate matter, selective non-catalytic reduction for nitrogen oxides and carbon injection for mercury. The test mey provide the Department with reasoneble assurance that the plant can burn TDF without contravening Department standards, rules or permit conditions. The Department will consider the results of the test burn in evaluating whether to issue a future permit modification to Okeelante Power LP. Any such action will require enother public notice.

The Department will issue the FINAL Permit Amendment, in accordance with the conditions of the DRAFT Permit Amendment unless e 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 Amendment issuance action for a perod of 14 (fourteen) 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 s significant change in this DRAFT Permit Amendment, the Department shall issue a Revised DRAFT Permit Amendment and require, if applicable, another Public Notice.

The Department will issue FINAL Permit Amendment with the conditions of the DRAFT Permit Amendment unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S. or a party requests mediaton as an alternative remedy under Section 120.573 before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The proceudures for petitioning for a hearing are set forth below, followed by the procedures for requesting mediation.

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 contein 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: 904/488-9370, fax: 904/487-4938. Petitions must be filed within (14) 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 (or a request for mediation, as discussed below) within the appropriate time period shall constitue a waiver of that persons'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 subsequant 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 shall 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 propoeed action; (d) A statement of the material facts disputed by Petitioner, if any; (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed ection; (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 petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the action or proposed action eddressed in this notice of intent.

Because the administrative hearing process is designed to formulate finsl sgency 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 affectacd 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 person whose substantial interests are affected by the Department's proposed permitting decision, may elect to pursue mediation by asking all parties to the proceeding to agree to such mediation and by filing with the Department a request for mediation and the written agreement of all such parties to mediate the dispute. The request and agreement must be filed in (received by) the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, by the same deadline as set forth above for the filing of a petition.

A request for mediation must contain the following information: (a) The name, address, and telephone number of the person requesting mediation and that person's representative, if any, (b) A statement of the preliminary agency action; (c) A statement of the relief sought, and (d) Either an explanation of how the requester's substantial interests will be affected by the action or proposed action addressed in this notice of intent or e statement clearly identifying the petition for hearing that the requester has already filed, and incorporating it by reference.

The agreement to mediate must include the following: (a) The names, addresses, and telephone numbers of any persons who may attend the mediation; (b) The name, address, and telephone number of the mediator selected by the parties, or a provision for selecting a mediator within a specified time; (c) The agreed allocation o the costs and fees associated with the mediation; (d) The agreement of the parties on the confidentiality of discussions and documents introduced during mediation; (e) The date, time, and place of the first mediation session, or a deadline for holding the first session, if no mediator has yet been chosen; (f) The name of each party's representative who shall have authority to settle or recommend sattlement; and (g) The signatures of all parties or their authorized representatives.

As provided in section 120.573 F.S., the timely agreement of all parties to mediate will toll the time limitations imposed by sections 120.569 end 120.57 for requesting and holding an administrative hearing. Unless otherwise egreed by the parties, the mediation must be concluded within sixty days of execution of the agreement. If mediation results in settlement of the administrative dispute, the Department must enter a final order incorprating the agreement of the parties. Persons whose substantial interests will be effected by such a modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set forth above. If mediation terminates without settlement of the dispute, the Department shall notify all perites in writing that the administrative hearing processes under sections 120.569 and 120.57 F.S. remain available for disposition of the dispute, and the notice will specify the deadlines that then will apply for challenging the agency action and electing remedies under those two statutes.

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

Department of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 904/488-1344
Fax: 904/922-6979

Department of Environmental Protection
South District
2295 Victoria Avenue,
Suite 364
Ft. Myers, Florida 33901
Telephone: 941/332-6975
Fax: 941/332-6969
Palm Beach County
Public Health Unit;
901 Evernia Street
West Palm Beach, Florida 33402-0029; Phone No.: 407/355-3070
Fax: 407/355-2442
(561)355-3435.

The complete project file includes the Draft Permit Amendment, 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, Naw Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 904/488-1344, for additional information.

PUB: The Palm Beach Post
December 24, 1996

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:
Dennis Space, Gen. Mgr.
Okeelanta Power, LP
P O Box 8
South Bay, Fl
33493

4a. Article Number
P 265 659 105

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

7. Date of Delivery
12-17-96

5. Signature (Addressee)

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

6. Signature (Agent)
Grzella Anderies

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

Thank you for using Return Receipt Service.

P 265 659 105

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: Okeelanta 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 12-13-96	

PS Form **3800**, April 1995

099032-003-AC
PSD-FI-196A

P 339 251 110

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

NO GREEN CARD

Sent to: Dennis Space	
Street & Number: Okeelanta Power	
Post Office, State, & ZIP Code: S. Bay, Fl	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	6-17-96

PS Form **3800**, April 1995

P 339 251 111

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

Sent to: Don Schaberg	
Street & Number: Osceola Power, LP	
Post Office, State, & ZIP Code: Pahokee, Fl	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	6-17-96

PS Form **3800**, April 1995

Fold at line over top of envelope to return address

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.
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- 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:
Don Schaberg, Gen. Mgr.
Osceola Power, LP
PO Box 606
Pahokee, Fl 33476

4a. Article Number: P 339 251 111

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

7. Date of Delivery: 6-20-96

5. Signature (Addressee)

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

6. Signature (Agent): Calvin Briscoe

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

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

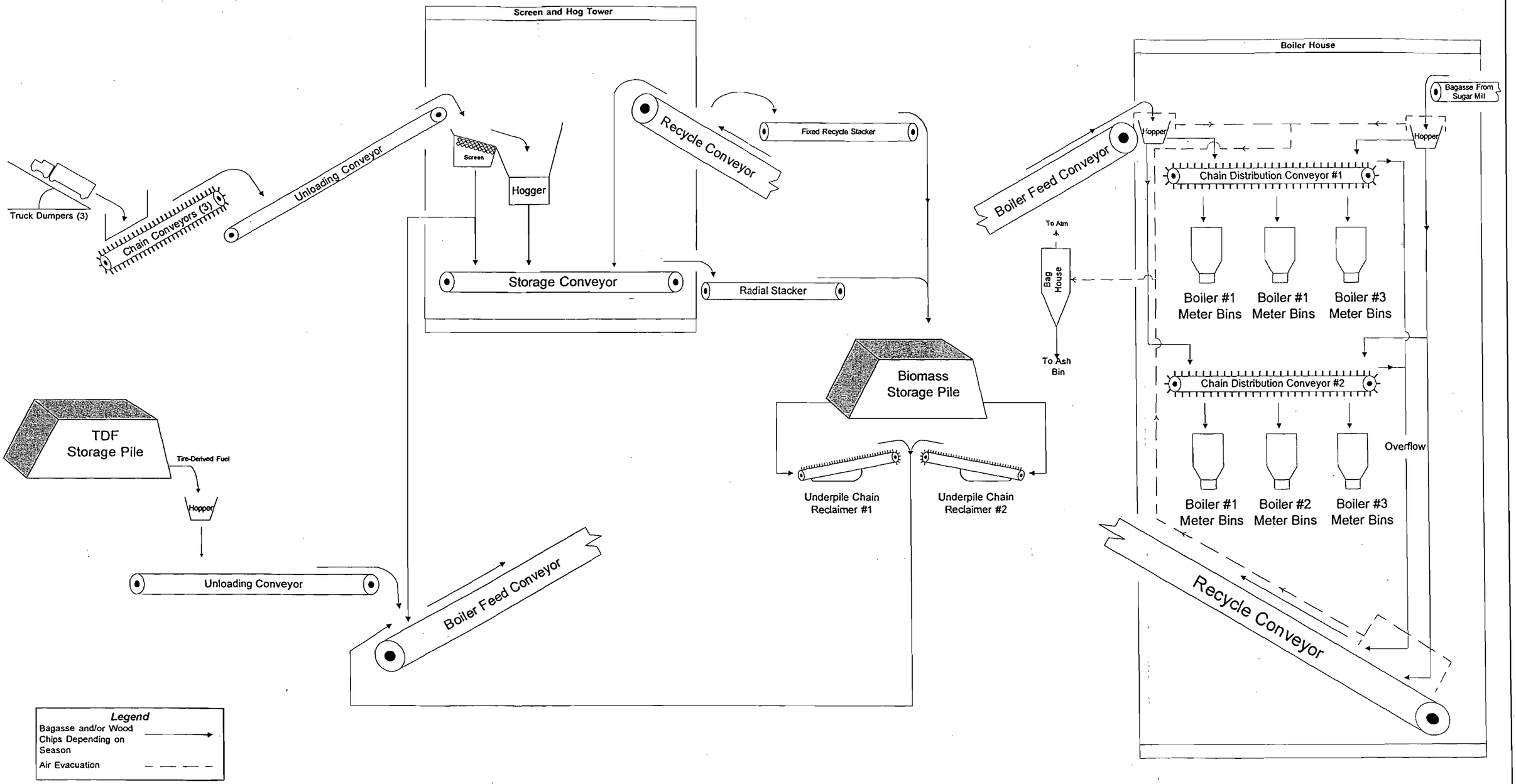

Figure 2-4.
Okeelanta Power Fuel Handling System

Okeelanta Power Limited Partnership | South Bay, Florida

Filename: OKFULFLW.VSD *Project:* 9651013Y/F1/WP

Latest Revision Date: 3/19/96

KBN
A GOLDER ASSOCIATES COMPANY