BEST AVAILABLE COPY



Department of Environmental Protection

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

Virginia B. Wet Secretary

September 2, 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Don Schaberg, General Manager Osceola Power Limited Partnership Post Office Box 606 Pahokee, Florida 33476

Re: Permit Amendment No. 0990331-003-AC, PSD-FL-197B Tire-Derived Fuel Performance Test

Dear Mr. Schaberg:

The Department has reviewed the letter submitted by Golder Associates dated August 21, 1997 requesting an extension of Osceola's construction permit to allow a test burn of tire-derived fuel (TDF) at one boiler located at Osceola 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.

Osceola Power, L.P. Permit Amendment File No. 0990331-003-AC Page 3 of 3

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

Sincerely,

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 - 9 to the person(s) listed:

Mr. Don Schaberg, Osceola 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. 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.

clerk)

Date)

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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



RECEIVED
AUG 2.2 1997
BUREAU OF
AIR REGULATION

Re: Osceola Power Limited Partnership (Osceola) Cogeneration Facility

Permit Amendment No. 0990331-003-AC, PSD-FL-197B

Tire-Derived Fuel Permit Amendment

Dear Mr. Fancy:

Osceola received a permit amendment on January 22, 1997, to allow a test burn of tire-derived fuel (TDF) at one boiler located at either Osceola or the Okeelanta Power Limited Partnership (Okeelanta) 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, Osceola 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 Osceola 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.

incerely

David A Buff, P.E

Florida P.E. #19011

cc: J

James Meriwether

File (2)

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Berger Davis & Singerman alment with

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

Fax: 904.561.3013

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JUN 3 0 1997

DIVIĞIDIN ON AM MESOURCES MANAGEMENI.

June 27, 1997

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

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

and Osceola Power Limited Partnership

Dear Howard:

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

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

Page Two June 27, 1997.

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

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

Your truly

Daniel H. Thompson

DHT/eam

cc: Peggy Highsmith



Department of Environmental Protection

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

Virginia B. Wetherell Secretary

May 19, 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Don Schaberg, General Manager Osceola Power Limited Partnership Post Office Box 606 Pahokee, Florida 33476

Re: Completion Date Extension - TDF Tests Permit AC50-269980/PSD-FL-197 File No. 0990331-003-AC

Dear Mr. Schaberg:

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 Pahokee 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

Mr. Don Schaberg File No. 0990331-003-AC May 19, 1997 Page 2

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 Appealate 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.

Howard L. Rhodes, Director Division of Air Resources

Management

Mr. Don Schaberg File No. 0990331-003-AC May 19, 1997 Page 3

HLR/wh

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 5-19-97 to the person(s) listed:

Mr. Don Schaberg, Osceola 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.

Clerk

(Date)

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Receipt for Certified Mail

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PS Form **3811**, December 1994

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Domestic Return Receipt

8. Addressee's Address (Only if requested

Florida Department of Environmental Protection

TO:

Howard L. Rhodes

THRU:

Clair Fancy

Al Linero /

FROM:

Willard Hanks Lund

DATE:

May 13, 1997

SUBJECT:

Osceola Power LP

TDF Test Burn Amendment

Attached for your approval and signature is a letter that will amend the construction permit for Osceola Power's cogeneration plant located near Pahokee 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

RECEIVED

MAY 19 1997

BUREAU OF AIR REGULATION



RECEIVED

MAY 12 1397

May 9, 1997

BUREAU OF AIR REGULATION

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: Osceola Power Limited Partnership

PSD-FL-197D, 0990331-003-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 #10237 in the amount of \$50.00 to cover the processing fee. If you have any questions please contact me at (561) 993-1003.

James M. Meriwether Environmental Manager

Carlos Rionda
Michael Keegan
David Buff
David Dee

GATOR GENERATING COMPANY LIMITED PARTNERSHIP

316 ROYAL POINCIANA PLAZA PALM BEACH, FL 33480

FIRST N

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

FOR TDF extension fee

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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

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Do not use for International Mail (See reverse)

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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: Osceola Power Limited Partnership (OsPLP) Cogeneration Facility

Permit Amendment No. 0990331-003-AC, PSD-FL-197B

Tire-Derived Fuel Permit Amendment

Dear Mr. Fancy:

OsPLP received a permit amendment on January 22, 1997, to allow a test burn of tire-derived fuel (TDF) at one boiler located at either OsPLP or the Okeelanta Power Limited Partnership (OkPLP) 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.

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

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

Sincerely, ...

David A. Buff, P.E.

Principal Engineer

orida P.E. #19011.

DB/arz

cc: James Meriwether

File (2)

RECEIVED

APR 25 1997

BUREAU OF AIR REGULATION



Department of Environmental Protection

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

Virginia B. Wetherell Secretary

March 5, 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

Dear Mr. Buff:

RE: Osceola Power L.P.

Permit Nos. 0990331-003-AC (PSD-FL-197C)

This is in response to your January 17 letter asking for clarification of amendments to the referenced permit.

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

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

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

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

Sincerely,

A. A. Linero, P.E. Administrator

New Source Review Section

AAL/wh/t

cc: Don Schaberg, Osceola Power L.P. Ajaya Satyal, PBCHD Kathy Anderson, DWM

P 265 659 183

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6. Signature: (Addressee or Agent)

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Thank you

8. Addressee's Address (Ohly if requested

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and fee is paid)

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

In the Matter of an

Application for Permit Amendment

Mr. Don Schaberg, General Manager Osceola Power Limited Partnership Post Office Box 606 Pahokee, Florida 33476 DEP File No. 0990331-003-AC PSD-FL-197B

Enclosed is a letter that amends Permit Number PSD-FL-197B. This letter amendment authorizes a performance test while burning Tire Derived Fuel (TDF) in the existing cogeneration plant located near Pahokee, 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 |-22-97| to the person(s) listed:

Mr. Don Schaberg, Osceola 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)

(Date)

FINAL DETERMINATION

Osceola Power Limited Partnership

Amendment of Permit No. AC 0990331-003-AC)
Osceola Power Cogeneration Facility

An Intent to Issue an air construction permit amendment for Osceola Power Limited Partnership's cogeneration facility located near Pahokee, 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.

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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. Don Schaberg General Manager Osceola Power Limited Partnership Post Office Box 606 Pahokee, Florida 33476

Re: Osceola Power LP
TDF Permit Amendment

AIRS ID No. 0990331-003-AC, PSD-FL-197B

Dear Mr. Schaberg:

The Department has reviewed the request from Osceola Power Limited Partnership received on May 16, 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 Pahokee, Palm Beach County, Florida.

You are hereby authorized to conduct performance tests on one boiler at this or a similar (Okeelanta 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 50-269980/PSD-FL-197B 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, South District, 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 firing in the construction permit No. PSD-FL-197B 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, and fly ash shall be reported based on the test/analytical data.
- 6. The maximum feed rate of tires to each boiler at the Osceola cogeneration plant shall not exceed 23,871 lbs/hr or 25 percent by weight of the total feed rate, whichever is less.
- 7. Besides the currently regulated pollutants, test the emission's for hydrochloric acid, arsenic, cadmium, chromium, zinc oxide, benzene, PCB, and dioxins/furans.
- 8. Emission 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 test 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 test burn 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-197B, or this authorization protocol. Performance testing shall not resume until appropriate measures to correct the problem(s) have been implemented.

Mr. Don Schaberg January 22, 1997 Page 4

- 16. This Department action is only to authorize the TDF blend performance test. Any firing of tire derived fuel beyond the 60 calendar day of testing approved to conduct such tests will be deemed a violation of permit No. PSD-FL-197C.
- 17. The Palm Beach County Public Health Unit, the Department's South District and 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-197B.
- 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-197B and shall become a part of the permit.

Sincerely,

Howard L! Rhodes, Director Division of Air Resources

Management

HLR/wh/t

Memorandum

Florida Department of **Environmental Protection**

TO:

Howard L. Rhodes

THRU:

Clair Fancy
Al Linero

FROM:

Willard Hanks

DATE:

January 17, 1997

SUBJECT:

Osceola Power LP

TDF Permit Amendment

AIRS ID No. 0990331-003-AC, PSD-FL-197B

Attached for approval and signature is a letter that will amend construction permit number AC-50-269980/PSD-FL-197B for Osceola Power's cogeneration plant located near Pahokee, 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. Clair Howard - We already public notices the intent on this performance test.

CHF/wh

Attachment

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



BUREAU OF AIR REGULATION

7861 1 S NAL

BECEINED

Re: Draft Permit Amendment No. 0990331-003-AC (PSD-FL-197C)
Osceola Power Limited Partnership (OsPLP) Cogeneration Facility
Tire-Derived Fuel Project

Dear Mr. Fancy:

OsPLP has received the draft permit amendment to allow a test burn of tire-derived fuel (TDF) at one boiler located at either OsPLP or the Okeelanta Power Limited Partnership (OkPLP) cogeneration facility. OsPLP 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 OsPLP is authorized to conduct performance tests on one boiler. However, we would like to clarify that, due to the common fuel feed system for both boilers at the OsPLP facility, the wood waste/TDF blend will be fired in both boilers during the testing, although only one boiler will be performance tested. OsPLP 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, OsPLP 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 both 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 can 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 OsPLP 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

9651026A/01

Mr. Clair Fancy, P.E. Page 2 January 17, 1997

(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,

"cc: '1" James Meriwether

File (2)

CC: W. Hanks, BAR SED Palm Beh Co

JAN 2 1 1997
BUREAU OF
AIR REGULATION

January 13, 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: Osceola 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. 0990331-003-AC) was published in The Palm Beach Post on December 24, 1996. On January 2, 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) 924-9000.

Sincerely,

James M. Meriwether Environmental Manager

cc: (w/o enclosure)

D. Schaberg
M. Keegan
L. Martos

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 authori	ty,personally	y appeare	d	is Bull		
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Swarm to and subscribed before it. Karen McLinton Notary Public, State of Florid Commission No. CC 591337 My Commission Exp. 11/15/20 1.800-5.NOTARY Fls. Notary Service & Bonding C	a } // / / / / / / / / / / / / / / / / /	Karen M.	1/h	ember	A.D. 19 ⁹⁶ 7 y Public	_
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No. 272384
LEGAL NOTICE
PUBLIC NOTICE OF
INTENT TO ISSUE
AIR CONSTRUCTION PERMIT
AMENDMENT
STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL
PROTECTION
DRAFT Permit Amendment
No: 0990331-003-AC, (PSD-FL197C)
Osceols

Cogeneration Plant
Palm Beach County
The Department of Environmental Protection (Department) givens notice of its intent to issue an air
construction permit emendment to Oscoola Power Limited Partnership to conduct a
sixty (60) day performance
test while burning a blend of
Tire Derived Fuel (TDF) with
begasse and/or wood wastes
at the Cogeneration Plant located near Pahokee, Palm
Beach County. A Best Aveilable Control Technology
(BACT) determination was not
required for eny poliutents
pursuant to Rule 82-212.400,
F.A.C., and 40 CFR 52.21, Prevention of Significant Deteriorration (PSD). The amendment
will not cause a violetion of
eny stete or federal ambient
of sullity standards or increments. The applicant's name
and address are: Osceole
Power LP, Post Office Box
606, Pahokee, Floride 33476.
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 compered
with burning coal as permitted. Emission controls consist
of electrostatic precipilators
for control of particulate metter, selective non-catalytic reduction for nitrogan oxides
and carbon injection for mercury. The test may provide the
Department will reasonable
assurance that the plant can
burn TDF without contravening Department standards,
rules or permit conditions. The
Department will saue the
results of the test burn in evaluating whether to issue a future permit modification. The
Department will saue the
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Department will assue the
results of the test burn in evaluating whether to issue a future permit modification of
oscoola Power LP. Any such
action will require another
public notice.
The Department will assue the
FINAL Permit Amendment, in
accordance with
the following procedures results in a diff

suits 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 and Road. Mell Station #5505. Talibhassee, Fiorida 32399-2400. Any written comments filed shell 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.

plicable, another Public Notice.

The Depertment 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 120.589 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 permiting decision may petition for
administrative hearing in

accordance with sections 120.589 and 120.57 F.S. The petition must contain the information set forth below and must be filled (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35. Tallahasses, Florida 32399-3000, falle phone: 904/488-9370, fax: 904/487-4938. Petitions must be filled within (14) days of receipt of this notice of intent, whichever occurs first. A petitioner must mall a copy of the petition to the applicant at the address indicated ebove, et the time of filling. The failure of any person to fille a petition (or a request for mediation, as discussed below) within the approprise time period shall constitue a walver of that persons's right to request on adappropriete time period shall constitue a waiver of that persons's right to request en 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.

Code. A petition shall contain the fol-

Code.
A potition 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 ection 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; (a) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action; (d) A statement of the petitioner contends warrant reversal or modification of the Department's action or proposed action; (d) A statement identified. ment's action or proposed ac-tion; (f) A statement identify-ing the rules or statutes that the petitioner contends re-quire raversel 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

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sceola

The egreement to mediate must include the following: (e) The names, addresses, and telephone numbers of eny persons who mey ettend the mediation; (b) The name, address, and telephone number of the mediator selected by the parties, or e provision for selecting a mediator within e specified time; (c) The agreed ellocation or the coats and fees associated with the mediation; (d) The agreement of the parties on the contidentiality of discussions and documents introduced during madiation; (e) The date, time, and place of the first mediation for holding the first session, if no medistor has yet been chosen; (f) The name of each party's representative who shell have suthority to settle or recommend settlement; and (g) The signatures of all parties of their authorized representatives.

As provided in section 120.573 F.S., the timely agreement of ell parties to medieta will toil the time limitations imposed by sections 120.589 and 120.57 for requesting and holding an administrative hearing. Unless otherwise agreed by the perties, 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. Parsons whose substantial interests will be affected by soft in a modified finel decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions sat 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. ramain available for disposition of the dispute, and the notice will specify the deedlines that then will apply for challenging the agency action and electing remedies under those two statues. 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, axcapt legal holidays at: Department of Environmental Protection Bureau of Air Regulation 111 S. Magnolie Drive, Suite 4 Tallehassee, Floride 32301 Talephone: 904/482-344 Fax: 904/922-6979 Department of Environmental Protection

Protection
South District
2295 Victoria Avenue,
Suite 364 Suite 364
Ft. Myers, Floride 33901
Ft. Myers, Floride 33901
Telephone: 941/332-9975
Fax: 941/332-9969
Palm Beach County
Public Health Unit;
901 Evernie Street
Wast Palm Beach, Flo
33402-0029; Phone Florida 407/355-3070 Fex: 407/355-2442 (561)355-3435. 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, axclusivs of confidential records under Section 403.111, F.S. Interested persons mey contact the Administrator, New Resource Review Section et 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or cell 904/488-1344, for additional information. PUB: The Psim Beach Post December 24, 1996

RECENTED

JAN 09 1991

BUREAU OF TON

AIR REGULATION

January 2, 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: Osceola 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. 0990331-003-AC) was published in The Palm Beach Post on December 24, 1996. Please find enclosed "Proof of Publication" from that newspaper.

If you have any questions please contact me at (561) 924-9000.

James M. Meriwether

Sincerely.

Environmental Manager

cc: D. Schaberg

H. Sturm

G. Cepero

M. Keegan

L. Martos

D. Buff

D. Dee

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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 author	Chris Bull Ority personally appeared Class Adv Mgr of The Palm Beach Post
who on oath says that she/he is	s 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	of advertising, being a Notice Intent to Issue Permit/Osceola
in the	Court, was published in said newspaper in
the issues of	December 24, 1996
continuously published in said P entered as second class mail mat County, Florida, for a period of o copy of advertisement; and affia any person, firm or corporation a	orida, and that the said newspaper has heretofore been alm Beach County, Florida, daily and Sunday and has been ter at the post office in West Palm Beach, in said Palm Beach ne year next preceding the first publication of the attached nt further says that she/he has neither paid nor promised any discount, rebate, commission or refund for the purpose or publication in the said newspaper.
Sworn to and subscribed before Karen McLinton Notary Public, State of Flor Commission No. CC 5913: My Commission Exp. 11/15/2 1-800-3-NOTARY Fls. Notary Service & Bondin	Karen M. McLinton, Notary Public
Type of Identification Produced	

No. 272384

LEGAL NOTICE
PUBLIC NOTICE OF
INTENT TO ISSUE
AIR CONSTRUCTION PERMIT
AMENDMENT
STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL
PROTECTION
DRAFT Permit Amendment
No: 0990331-003-AC, (PSD-FL197C)
Oeceola
Cogeneration Plant
Palm Beach County
The Department of Environment) givens notice of its intent to issue an air
construction permit amendment to Osceola Power Limited Partnership to conduct a
sixty (60) day performance
test while burning a blend of
Tire Derived Fuel (TDF) with
bagesse and/or wood westes
at the Cogeneration Plant located near Pahokee, Palm
Beach County. A Best Available Control Tachnology
(BACT) determination was not
required for any pollutants
pursuant to Rule 82-212-400,
F.A.C., and 40 CPR 52-21, Prevention of Significant Deterforation (PSD). The amendmant
will not cause a violation of
any state or federal ambient
air quality standards or increments. The applicant's name
and address are: Oeceola
Power LP, Post Office Box
608, Pahokee, Floride 33476.
The plant is already permitted
to burn bagesse and wood
westes 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 mettar, 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 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. The
Department will consider the
results of the TDAFT - Permit
Amendment unless a response
received in accordance with
the following procedures results in a different decision or
significant change of terms or,
conditions.

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The Department will accept written comments concerning the proposed DRAFT Permit Amendment issuance action for a perod of 14 (fourteen) days from the data of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Staff carea. Road. Mell Station #5505. Tallahassee, Florida 32399-2400. Any written comments filed shall be made evallable 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 with the conditions of the DRAFT Permit Amendment with the DRAFT Permit Amendment with the DRAFT Permit Amendment with the Conditions of the DRAFT Permit Amendment with the Conditions of the DRAFT Permit Amendment with the Conditions of the DRAFT Permit Amendment with t

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ing mediation.

A person whose substantial interests are affacted by the Department's proposed, permiting decision may petition for a diministrative hearing in accordance, with sections as edition.

Betition must contain the information set forth the petition of a 3239-3000, set forth a 3239-3000, set forth set 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 parson to file a petition (or a request for mediation, as discussed below) within the appropriate time period shall constitue a welvar of that personal indicated shall constitue a welvar of that personal indicated 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 presiden set filing of a motion in compliance with rule 28-5.207 or the Florida Administrative Code.

A patition shall contain the following information:

(a) The name, address and telephone shell contain the following information:

(b) A statement of now 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 each petitioner fow and when each petitioner contends are affected by the Department's action or proposed action; (d) A statement of the pepartment's action or proposed action; and (e) A statement of the Department's action or proposed action; and (e) A statement of the Department's action or proposed action; and (e) A statement of the pepartment on the pepartment on the pepartment on the ceeding, in accordance with the requirements set forth above.

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(c) A statement of the registration of the plantion of flow the request. the requirements set forth

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Clerk

D.C.

Complainant's Solicitor.

Filed

in the Office of Clerk of Circuit Court

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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
Sureau 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 384
Ft. Myers, Florida 33901

A STATE OF THE STA

South District
2295 Victoria Avenue,
3uite 364
Ft. Myers, Florida 33901
Telephone: 941/332-6975
Fax: 941/332-8969
Palm Beach County
Public Health Unit;
901 Evernia Street
Wast 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 New
Resource Review Section at 111 South Magnolla Drives
Suite 4, Tallahassee Florida
32301, or call 904/488-1344.



Department of Environmental Protection

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

December 13, 1996

Virginia B. Wetherell Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Don Schaberg General Manager Osceola Power, LP Post Office Box 606 Pahokee, Florida 33476

Re: DRAFT Permit Amendment No. 0990331-003-AC (PSD-FL-197C)

Osceola Cogeneration Plant Tire Derived Fuel Project

Dear Mr. Schaberg:

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 Pahokee, 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 may be burned 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 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.É., Chief,

Bureau of Air Regulation

·CHF/aal/l

Enclosures

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

In the Matter of an Application for Permit Amendment by:

Osceola Power Limited Partnership Post Office Box 606 Pahokee, Florida 33476 / DRAFT Permit Amendment No.: 0990331-003-AC PSD-FL-197C Osceola 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, Osceola Power Limited Partnership, applied on May 16, 1996, to the Department for a air construction permit modification for its Cogeneration Plant located near Pahokee, 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 "<u>PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AMENDMENT.</u>" 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

Draft Permit Amendment No.: 0990331-003-AC, (PSD-FL-197C) Page 2 of 4

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.

Draft Permit Amendment No.: 0990331-003-AC, (PSD-FL-197C) Page 3 of 4

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.

Draft Permit Amendment No.: 0990331-003-AC, (PSD-FL-197C)
Page 4 of 4

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 $\frac{|Q-|Q-|Q-|}{|Q-|Q-|}$ to the person(s) listed:

Mr. Don Schaberg, Osceola 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)

(Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT AMENDMENT

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DRAFT Permit Amendment No.: 0990331-003-AC, (PSD-FL-197C)
Osceola Cogeneration Plant
Palm Beach County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit amendment to Osceola 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 Pahokee, 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: Osceola Power LP, Post Office Box 606, Pahokee, Florida 33476.

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 Osceola 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.

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 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.

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.



January XX, 1996

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Don Schaberg General Manager Osceola Power Limited Partnership Post Office Box 606 Pahokee, Florida 33476

Re: Osceola Power LP

TDF Permit Amendment

AIRS ID No. 0990331-003-AC, PSD-FL-197C

Dear Mr. Schaberg:

The Department has reviewed the request from Osceola Power Limited Partnership received on May 16, 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 Pahokee, Palm Beach County, Florida.

You are hereby authorized to conduct performance tests on one boiler at this or a similar (Okeelanta 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 50-269980/PSD-FL-197B 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, South District, 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:

- 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 firing in the construction permit No. PSD-FL-197B 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 of daily samples shall be required as well as analyses of a composite sample collected during the particulate matter tests.
- 5. A material balance of the metals in the fuel, emissions, bottom, and fly ash shall be reported based on the test/analytical data.
- 6. The maximum feed rate of tires to each boiler at the Osceola cogeneration plant shall not exceed 23,871 lbs/hr or 25 percent by weight of the total feed rate, whichever is less.
- 7. Besides the currently regulated pollutants, test the emissions for hydrochloric acid, arsenic, cadmium, chromium, zinc oxide, benzene, PCB, and dioxins/furans.
- 8. Emission 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 test 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 test burn 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-197B, 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 day of testing approved to conduct such tests will be deemed a violation of permit No. PSD-FL-197C.
- 17. The Palm Beach County Public Health Unit, the Department's South District and 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-197B.
- 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-197B and shall become a part of the permit.

Sincerely,

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

HLR/wh/h

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Florida Department of Environmental Protection

Memorandum

TO:

Clair Fancy

THROUGH:

Al Linero

FROM .

Willard Hanks www.

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



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FROM: David Buff		ber: <u>964 - 488 -</u>	773
OFFICE: Gainesville Washington D.C.	☐ Tampa ☐ Jacksonville	☐ Boca Raton	
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KBN Engineering and Applied Sciences, Inc. 6241 NW 23rd Street Gainesville, Florida, 32653-1500 (352) 336-5600/FAX (352) 336-6603

5405 West Cypress Street, Suite 215 Tampa, FL 33607 (813) 287-1717/FAX (813) 287-1716

1801 Clint Moore Road, Suite 105 Boca Raton, FL 33487 (407) 994-9910/FAX (407) 994-9393 1616 "P" Street N.W., Sulte 350 Washington, DC 20036 (202) 462-1100/FAX (202) 462-2270

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

BEST AVAILABLE COPY:

MEMORANDUM

TO: Willard Hanks, FDEP

FROM: David Buff, KBN/Golder QAB

DATE: November 26, 1996

RE: TDF Trial Burn Permit; OkPLP; OsPLP

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

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

- SC 2 Reword as "The maximum TDF content of the fuel shall not exceed 25 percent by weight. Performance testing shall be conducted within 60 calendar days..."
- SC 3 This condition should be clear that TDF fixing should be compared to limits for coal in the permit: "Stack emissions due to TDF fixing shall not exceed any limit for coal burning in the construction permit..."
- SC 4 Does the Department want total metals analysis or TCLP analysis on the bottom ash and fly ash? SC 5 would indicate that a total metals analysis is necessary. Is TCLP required as well?
- SC 6 This condition should also refer to Osceola cogeneration plant, in case this plant is tested 23,871 lb/hr or 25 percent by weight of the total feed rate.
- SC 11 Please note that, depending on when actual TDF testing is conducted, the July 1, 1997 deadline may need to be extended. However, I believe the construction permit is automatically extended until issuance of the Title V permit (assuming such issuance has not occurred prior to July 1, 1997).
- SC 13 The purpose of this request should be stated. Is this to determine if a new PSD permit is required? Would this be based on the changes in <u>allowable</u> emissions due to TDF firing, if any changes are necessary? As long as the current allowable emissions are not exceeded due to TDF firing, then PSD review should not be required.
- SC 16 Reword as ".. 60 calendar days.."

PAGE

BEST AVAILABLE COPY

Memorandum November 26, 1996 Page 2

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

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

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

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

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

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

cc: File (2)



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)

RECEIVED NOV 0 4 1996

BUREAU OF AIR REGULATION

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) <u>Trial Burn Window</u>: The trial burn is approved for a period of (60) consecutive calendar days from the initial burning of TDF.
- (2) <u>Notification</u>: 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 SO₂, 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.

Page 1 of 2

- 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) <u>Test Burn Reports</u>: 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 SO₂, 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, Air Permit Engineer

Air Pollution Control Section

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

FAX: (407) 355-2442

Filename: COGEN 3.CMT

CC: 5D

K. Anderson





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. Don Schaberg General Manager Osceola Power Limited Partnership Post Office Box 606 Pahokee, Florida 33476

Re:

Osceola Power Limited Partnership
Tire Derived Fuel Permit Amendment
Permit File No. AC50-269980, PSD-FL-197C

Dear Mr. Schaberg:

The Department has received the responses to our incompleteness letter for incorporating the use of Tire Derived Fuel (TDF) as a supplemental fuel at Osceola 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. The corrected application pages submitted with the response indicates TDF firing to be 25 percent on an annual basis. The original application stated TDF firing to be limited to 16.5 percent annually. Please explain the discrepancy between the two numbers.
- 3. Please indicate if a waiver has been approved for an extension of the initial performance test. When will the initial performance test take place?

Mr. Don Schaberg Page Two August 16, 1996

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

Sincerely,

Willand Hanks 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

Memorandum

Florida Department of Environmental Protection

TO:

Syed Arif

FROM:

Kathy Anderson, Solid Waste Section SKA 6/0/96

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.
- 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.
- Compare the calculated concentration of arsenic in the wood fuel with the <2.4% CCA treated wood by volume assumption used in the 4/18/95
 Osceola submittal (see Table 2-9) ?
- 4. The TDF data presented is for TDF fuel only, what are that anticipated concentrations of heavy metals in the wood fuel combined with TDF? What are the anticipated concentrations of heavy metals in the ash? Please present mass balance calculations supporting the anticipated concentrations of heavy metals.

MEMORANDUM

Page Two August 8, 1996

I have many more questions pertaining to ash that will be dealt with in the solid waste tire permit which is currently being processed in South District, but I felt like these questions pertained to air permit conditions and could be 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.

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Memorandum

Florida Department of **Environmental Protection**

TO:

Syed Arif

FROM:

Kathy Anderson, Solid Waste Section SKA SISA

DATE:

August 12, 1996

SUBJECT:

Osceola & Okeelanta Sugar Mill Cogeneration Facility

Tire Derived Fuel Permit Amendment

I have reviewed the July 17,1996 response that Okeelanta and Osceola had to your first RAI on Permit Amendment # AC50-269980. The following is a list of questions that I would like to see addressed pertaining to air and ash:

- 1. The current permit requires that the concentration of heavy metals be measured in the wood fuel prior to incineration and in the ash prior to disposal. Please provide mass balance calculations for heavy metals in the ash and wood fuel. For example, since the average concentration of arsenic is known in the fly ash, back calculate the concentration of arsenic in the wood fuel prior to incineration. How do the calculated numbers compare to the actual concentrations observed in the wood fuel? Submit summary tables of actual data collected for heavy metals in ash and wood fuel to validate the use of average concentrations numbers used in the mass balance calculations.
- 2. Compare the calculated concentration of arsenic in the wood fuel with the <3% CCA treated wood by volume assumption used in the 5/2/96 Okeelanta submittal (see Table 2-11). Explain any significant differences.
- 3. Compare the calculated concentration of arsenic in the wood fuel with the < 2.4% CCA treated wood by volume assumption used in the 4/18/95 Osceola submittal (see Table 2-9)?
- 4. The TDF data presented is for TDF fuel only, what are that anticipated concentrations of heavy metals in the wood fuel combined with TDF? What are the anticipated concentrations of heavy metals in the ash? Please present mass balance calculations supporting the anticipated concentrations of heavy metals.

MEMORANDUM

Page Two August 8, 1996

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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

RECLIVED

AUG 7 1996

BUREAU OF AIR REGULATION

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.
- 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.

Page 1 of 2

CC: D. Buff, KBN D. Knowles, 50 EPA NPS, S. ary, BAR

Comments on Response to PBCPHU Request for Additional Information

- (1-3) No comments.
- We agree that potential HCl emissions are an order of magnitude lower than potential SO₂ 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 SO₂ 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 F. Koerner, PE

Air Pollution Control Section

Phone: (407) 355-4549 FAX: (407) 355-2442

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 <u>Guidance For The Sampling And Analysis Of Municipal Waste Combustion Ash For The Toxicity Characteristic, June 1995</u>.

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.



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. Don Schaberg General Manager Osceola Power Limited Partnership Post Office Box 606 Pahokee, Florida 33476

Re: Osceola Power Limited Partnership

Tire Derived Fuel Permit Amendment

Permit File No. AC50-269980, PSD-FL-197C

Dear Mr. Schaberg:

Further to our completeness letter dated June 13, please address the attached comments form the Palm Beach County Public Health Unit with the information requested by the Department.

If you have any questions regarding this supplementary request, please call Jeff Koerner of the PBCPHU 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

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HRS / PALM BEACH COUNTY PUBLIC HEALTH UNIT DIVISION OF ENVIRONMENTAL HEALTH AND ENGINEERING RECEIVED Air Pollution Control Section

FACSIMILE TRANSMITTAL COVER SHEET

JUN 17 1996

DATE: June 13, 1996

BUREAU OF AIR REGULATION

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



Department of Environmental Protection

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

Virginia B. Wetherell Secretary

June 13, 1996

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Don Schaberg General Manager Osceola Power Limited Partnership Post Office Box 606 Pahokee, Florida 33476

Re: Osceola Power Limited Partnership
Tire Derived Fuel Permit Amendment
Permit File No. AC50-269980, PSD-FL-197C

Dear Mr. Schaberg:

j

The Department has received the application for incorporating the use of Tire Derived Fuel (TDF) as a supplemental fuel at Osceola 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. 20 (a) of the above referenced
- * permit also requires the same. If the test was conducted, please submit 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. 20 (a) requirements.
- 2. 40 CFR 60, Subpart Ea defines Cofired combustor as a unit combusting 30 percentor 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 submit the PSD source applicability analysis table for the facility, similar to the one submitted as Table 3-1, page 3-2 for the Okeelanta Power facility.

- 4. Please quantify increases in mercury emissions, if any, due to TDF firing. Also, indicate if a test program will be introduced by the facility to establish actual mercuryemission factors for each fuel.
- 5. Please indicate if the TDF emissions are being offset by reduction in coal burning at the facility. If so, what percent in reduction will be achieved for coal firing.
- 6. 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.
- 7. Are there further measures available since the submittal of the April, 1995, permit amendment application that Osceola Power could take that would limit arsenic impacts to levels below the Florida Ambient Reference Concentrations?

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,

A. A. Linero, P.E.

Administrator

New Source Review Section

AAL/sa/t

cc: D. Knowles, SD

- J. Koerner, PBCHU
- J. Harner. EPA
- J. Bunyak, NPS
- D. Buff, KBN

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APPLICATION TO AMEND PSD PERMIT FOR OSCEOLA POWER LIMITED PARTNERSHIP

Prepared For:

Osceola Power Limited Partnership P.O. Box 606 Pahokee, Florida 33476

Prepared By:

KBN Engineering and Applied Sciences, Inc. 6241 NW 23rd Street
Gainesville, Florida 32653-1500

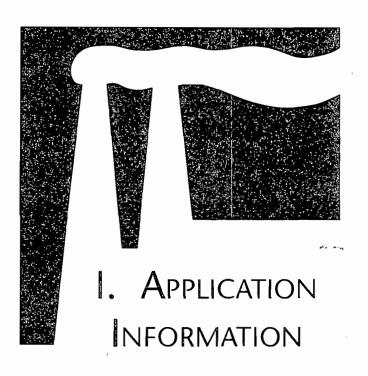
May 1996 9651011Y/F1



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PART A PERMIT APPLICATION FORM OSCEOLA POWER LIMITED PARTNERSHIP



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.

Facility Owner/Company Name: Osceola Power Limited Partnership					
2. Site Name: Osceola Power L.P.					
3. Facility Identification Number: 0990331	[] Unknown				
Facility Location Information: Street Address or Other Locator: U.S. 98 and Hatton Highway					
City: Pahokee County:	Palm Beach Zip Code: 33476				
5. Relocatable Facility? [] Yes [x] No	6. Existing Permitted Facility? [x] Yes [] No				

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	5-16-96
2. Permit Number:	0990331-003-AC
3. PSD Number (if applicable):	P3D-F1-197C
4. Siting Number (if applicable):	

1

DEP Form No. 62.210.900(1) - Form Effective: 03-21-96

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:

Don Schaberg, General Manager

2. Owner/Authorized Representative or Responsible Official Mailing Address:

Organization/Firm: Osceola Power Limited Partnership

Street Address: P.O. Box 606

City: Pahokee

State: FL

Zip Code:

3. Owner/Authorized Representative or Responsible Official Telephone Numbers:

Telephone:

407-924-9000

Fax: (407)**924-7428**

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

5/14/96

Schabe

^{*} 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	
Unit #	Unit ID		
1	001		200
1R	001	Boiler No.1 fired by Biomass/No.2 oil/Coal/TDF	ACM2
2R	002	Boiler No.2 fired by Biomass/No.2 oil/Coal/TDF	ACM2
3R		Fugitive Emissions from Biomass/Coal/Ash 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".

Permit

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	s 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:
		
Ca	te	gory III: All Air Construction Permit Applications for All Facilities and Emissions Units.
Thi	is .	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:
		AC 50-269980
[]	Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.
		Current operation permit number(s):
[}	Air construction permit for one or more existing, but unpermitted, emissions units.

Application Processing Fee
Check one:
[] Attached - Amount: \$ \$ 250.00 [] Not Applicable.
Construction/Modification Information
1. Description of Proposed Project or Alterations:
This application proposes revisions to the current construction permit to accommodate tire-derived fuel utilization. Construction of a 74 MW Biomass fired cogeneration facility.
_
2. Projected or Actual Date of Commencement of Construction :
1 Jul 1996

Professional Engineer Certification

1 Jun 1997

3. Projected Date of Completion of Construction:

1. Professional Engineer Name: David A. Buff		
Registration Number: 19011		

2. Professional Engineer Mailing Address:
Organization/Firm: KBN Eng and Applied Sciences, Inc.

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.

in said a Baff	5/3/96
Signature:	Date
Attackenty exception to certification state	ement.

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Application Contact

1. Name and Title of Application Contact: David A. Buff,

2. Application Contact Mailing Address:

Organization/Firm: KBN Eng and Applied Sciences Street Address: 6241 NW 23rd Street, Suite 500

City: Gainesville

State: FL

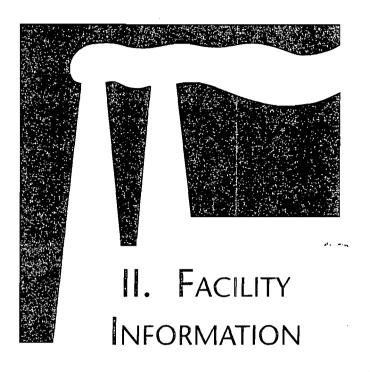
Zip Code: 32653-1500

3. Application Contact Telephone Numbers:

Telephone: (352) 336-5600

Fax: (352) 336-6603

Application Comment



II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

Facility UTM Coo Zone: 17	rdinates: East (km): 54	4.2 No	rth (km): 2968.0	
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): 26 / 49 / 45 Longitude: (DD/MM/SS): 80 / 33 / 0				
3. Governmental Facility Code:	4. Facility Status Code:	5. Facility Major Group SIC Code: 49	6. Facility SIC(s):	

7. Facility Comment (limit to 500 characters):

74 MW Electric Cogen using biomass, oil, coal, or tire-derived fuel

Facility Contact

- 1. Name and Title of Facility Contact:
 - S. Donald Schaberg, P.E.
- 2. Facility Contact Mailing Address:

Organization/Firm: Osceola Power Limited Partnership

Street Address: P.O. Box 606

City: Pahokee

State: FL

Zip Code: 33476

3. Facility Contact Telephone Numbers:

Telephone: 407-924-9000

Fax:

(407)924-7428

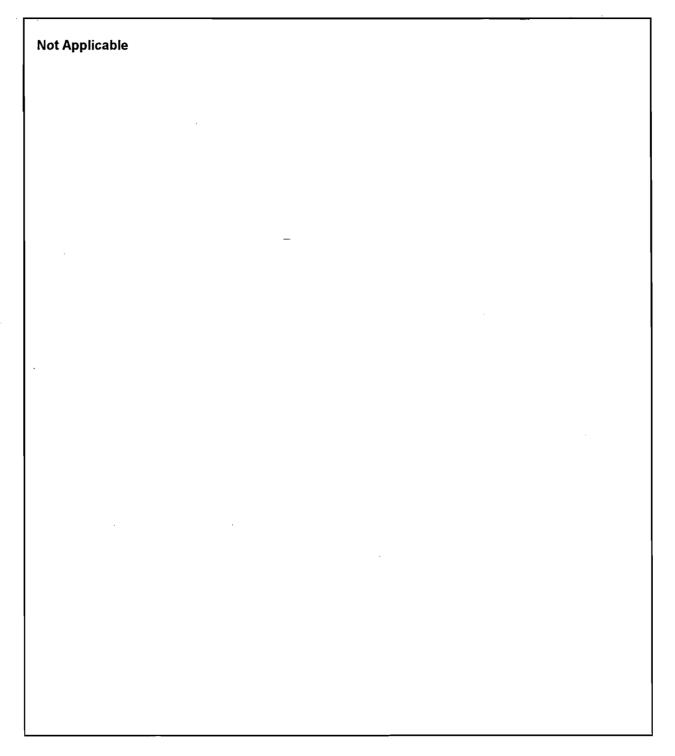
9

Facility Regulatory Classifications

Small Business Stationary Sour [] Yes	ce? [x] No	[] Unknown
2. Title V Source? [x] Yes	[]No	
3. Synthetic Non-Title V Source? [] Yes,	[x] No	
 Major Source of Pollutants Oth X] Yes 	er than Hazardous Air Polluta [] No	nts (HAPs)?
5. Synthetic Minor Source of Pollic [] Yes	utants Other than HAPs? [x] No	
6. Major Source of Hazardous Air	Pollutants (HAPs)?	
7. Synthetic Minor Source of HAI [] Yes	Ps? [x]No	
8. One or More Emissions Units S [x] Yes	Subject to NSPS? [] No	
9. One or More Emissions Units S [] Yes	Subject to NESHAP? [x] No	
10. Title V Source by EPA Design [] Yes	ation? [x]No	
11. Facility Regulatory Classification	ons Comment (limit to 200 cha	aracters):

B. FACILITY REGULATIONS

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



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62-210.300 62-212.300

List of Applicable Regulations (Required for Category I applications and Category III applications

involving Title-V sources. See Instructions.)

C. FACILITY POLLUTANTS

Facility Pollutant Information

PM10 Part SO2 Sult NOX Nitt CO Cart VOC Volt PB Lead	ciculate Matter - Total ciculate Matter - PM10 fur Dioxide cogen Oxides con Monoxide	A A A
SO2 Sul: NOx Nit: CO Carl VOC Vol: PB Lead	ur Dioxide ogen Oxides oon Monoxide	A A
NOx Nit: CO Carl VOC Vol: PB Lead	rogen Oxides oon Monoxide	A
CO Carl VOC Vola PB Lead	oon Monoxide	
VOC Vola		7A ·
PB Lead		
	tile Organic Compounds	A
H114 Mer	l - Total	В
	cury Compounds	B
	rllium Compounds	B
	orides - Total	. В
	uric Acid Mist	В
	l Hazardous Air Pollutants	A 4.5
H106 Hyd:	cochloric acid	_ A

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Detail Information:

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

Facility Pollutant Detail Information:

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

E. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements for All Applications

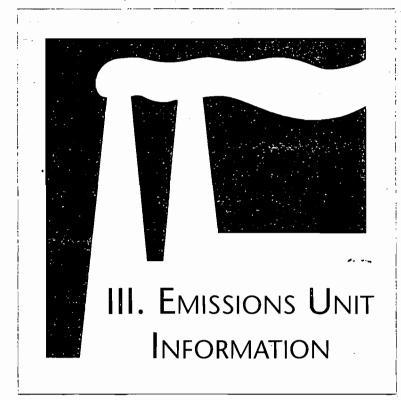
Area Map Showing Facility Location: [x] Attached, Document ID: PART B [] Not Applicable [_] Waiver Requested
2. Facility Plot Plan: [x] Attached, Document ID: PART B [] Not Applicable [_] Waiver Requested
3. Process Flow Diagram(s): [x] Attached, Document ID(s): PART B [] Not Applicable [_] Waiver Requested
4. Precautions to Prevent Emissions of Unconfined Particula [x] Attached, Document ID: PART B [] Not Applicable [ate Matter: -] Waiver Requested
5. Fugitive Emissions Identification: [x] Attached, Document ID: PART B [] Not Applicable [_] Waiver Requested
6. Supplemental Information for Construction Permit Applie [x] Attached, Document ID: PART B [] Not Applicable	cation:
Additional Supplemental Requirements for Category I A	oplications 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 [x] Not Applicable	_ be Individually Listed
9. Alternative Methods of Operation: [] Attached, Document ID: [x] Not Applicable	
10. Alternative Modes of Operation (Emissions Trading): [] Attached, Document ID: [x] Not Applicable	_

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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)

(Reg	guiated and Unregulated Emissions Units)
Type of Emissions Unit Add	ressed in This Section
1. Regulated or Unregulated	Emissions Unit? Check one:
[x] The emissions unit addressions unit.	essed in this Emissions Unit Information Section is a regulated
[] The emissions unit addre	essed in this Emissions Unit Information Section is an unregulated
2. Single Process, Group of P	Processes, or Fugitive Only? Check one:
process or production un	rmation Section addresses, as a single emissions unit, a single nit, or activity, which produces one or more air pollutants and which e emission point (stack or vent)
process or production un	ormation Section addresses, as a single emissions unit, a group of nits and activities which has at least one definable emission point also produce fugitive emissions.
This Emissions Unit Info	ormation Section addresses, as a single emissions unit, one or more

process or production units and activities which produce fugitive emissions only.

Emissions Unit Information Section	. 1	of	3	
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B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

Description of Emissions Unit Addressed in This Section (limit to 60 characters): Boiler No.1 fired by Biomass/No.2 oil/Coal/TDF				
Emissions Unit Identification Number: [] No Corresponding ID [] Unknown 001				
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [] Yes [_X] No	5. Emissions Unit Major Group SIC Code: 49		
6. Emissions Unit Commen	t (limit to 500 characters):			
T T III groot generaling	capacity for citation facility			

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters):

ESP - Electrostatic Precipitator

2. Control Device or Method Code: 10

В.

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

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Emissions Unit Information Section	1 of	3
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C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

Emissions Unit Details

Model Number:
MW
OT .
°F
seconds °F

Emissions Unit Operating Capacity

Maximum Heat Input Rate:		760	mmBtu/hr	
2. Maximum Incineration Rate:	lbs/hr			
3. Maximum Process or Throughput Rate:				
4. Maximum Production Rate:	,	٠.		
5. Operating Capacity Comment (limit to 20	0 characters)):		
Maximum heat input rates: Biomass - 760 Coal - 530 MMBtu/hr; Tire-derived fuel - 37	•	o.2 Fuel Oil	- 600 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)

 	Sources. See 1	——————————————————————————————————————	cations and Cat	· ·	

Emissions Unit Information Section	1	of	3	
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<u>List of Applicable Regulations</u> (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

40 CFR 60,Subpart Da 40 CFR 60,Subparts Ea and Cb	. •	

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Emissions Unit Information Section	of	3
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E. EMISSION POINT (STACK/VENT) INFORMATION (Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagra	m:					
BLR 1						
2. Emission Point Type Code:	_					
2. Linission I onte Type Code.						
[x]1 []2 []3	[]4					
3. Descriptions of Emissions Points Comprising this I to 100 characters per point):	Emissions Unit for VE Tracking (limit					
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:						
5. Discharge Type Code:						
[]D] P					
6. Stack Height:	200 feet					
7. Exit Diameter:	8 feet					
8. Exit Temperature:	295 °F					

Source Information Section 1	of	3		
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9.	Actual Volumetric Flow Rat	e:	246,000 ac			•
10.	Percent Water Vapor:		9/	, o		
11.	Maximum Dry Standard Flo	w Rate:	ds	scfm		
12.	Nonstack Emission Point He	eight:	fe	et		
13.	Emission Point UTM Coord	inates:			- - ·	
	Zone: 17 East (km):	544.2	North (kı	n): 2968.0		
14.	Emission Point Comment (li	mit to 200 c	haracters):	_		-
	Stack parameters based on	biomass.			* ***	
1						
·						

Emissions	Unit Information Section	1	of	3	
	C C CI III MEION DECEION	•	~.	-	

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: 89,412 783,144 6. Estimated Annual Activity Factor: 7. Maximum Percent Sulfur: 8. Maximum Percent Ash: 0.03 9. Million Btu per SCC Unit: 8 10. Segment Comment (limit to 200 characters): Maximum Percent Sulfur: 0.025. Million Btu per SCC Unit: 8.5. Total bagasse both boilers = 965,647 TPY

25

Segment Description and Rate: Segment 2 of 5

1.	. Segment Description (Process/Fuel Type ar	d 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:

605,236

6. Estimated Annual Activity Factor:

69.091

7. Maximum Percent Sulfur: 0.03

8. Maximum Percent Ash:

3.2

9. Million Btu per SCC Unit:

11

10. Segment Comment (limit to 200 characters):

Maximum Percert Sulfur: 0.025. Total wood waste both boilers = 623,055 TPY

•

Emissions	Unit	Information	Section	1	of	3	

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

Segment Description and Rate: Segment	egment Description and Rate: Segment of				
1. Segment Description (Process/Fuel Ty (limit to 500 characters):	 Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): 				
Electric Utility Boiler - Distillate Oil - Gra	des 1 and 2 Oil				
	•				
2. Source Classification Code (SCC):					
	-01-005-01				
3. SCC Units:					
Thousand Gallons Burned					
4. Maximum Hourly Rate:	5. Maximum Annual Rate:				
4.348	13,942				
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 chara	acters):				
Maximum Annual Rate: 13,942.251. To	otal No.2 Fuel Oil both boilers = 13,942,251 gal/yr.				
This represents 24.9% oil firing on a h	eat input basis.				
·	, 9				

Emissions Unit Informa	tion Section	1	of	3

Segment Description and Rate: Segment 4 of 5

1. Segment Description (Process/Fuel Type and Associated Operating Method	od/Mode)
(limit to 500 characters):	
Electric Utility Boiler - Bituminous Coal - Spreader Stoker	

2. Source Classification Code (SCC):

1-01-002-04

3. SCC Units:

Tons Burned

4. Maximum Hourly Rate: 22.084

5. Maximum Annual Rate:

18,221

- 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 both boilers = 18,221 TPY. This represents 5.4% coal burning on a heat input basis.

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Emissions	Unit Information Section	1	of	3	

Boiler No.1

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

Segment Description and Rate: Segment _____ of _____ 5

	· ·			
1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):				
Solid Waste - Tire Derived Fuel				
	·			
2. Source Classification Code (SCC):				
	-01-012-01			
3. SCC Units:				
Tons Burned				
4. Maximum Hourly Rate:	5. Maximum Annual Rate:			
11.94	43,687			
6. Estimated Annual Activity Factor:				
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:			
1.2	4.9			
9. Million Btu per SCC Unit:				
	31			
10. Segment Comment (limit to 200 chara	acters):			
Total TDF both boilers = 43.687 TPY.	This represents 16.5% TDF burning on a heat input			
basis (6.6% 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)

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

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Mercury Compounds

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

1. Pollutant Emitted: H114					
2. Total Percent Efficiency of Control: 25 %					
3. Potential Emissions: 0.0046 lb/hour 0.0168 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:					
7. Emissions Method Code:					
[]0					
8. Calculation of Emissions (limit to 600 characters): See Part B 9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):					
0.0168 TPY total both boilers					

Emissions Unit Information Section _____ of ____3 Allowable Emissions (Pollutant identified on front page)

1	١	
_	7	•

1.	Basis for Allowable Emissions Code: OTHER			
2.	Future Effective Date of Allowable Emissions:			
3.	Requested Allowable Emissions and Units:			
	5.7 E-06 lb/MMBtu			
4.	Equivalent Allowable Emissions: 0.0043 lb/hour 0.0168 tons/year			
5.	Method of Compliance (limit to 60 characters):			
	EPA Method 101A			
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):			
	Emission limit is for bagasse. Emission limit for wood waste is 2.9E-07 lb/MMBtu.			
	•			

B.

1.	Basis for Allowable Emissions Code: OTHER
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units:
	2.4 E-06 lb/MMBtu
4.	Equivalent Allowable Emissions: 0.0014 lb/hour 0.0063 tons/year
5.	Method of Compliance (limit to 60 characters):
	EPA Method 101A
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 _____ of ____3 Allowable Emissions (Pollutant identified on front page)

1	١	
4		•

1.	Basis for Allowable Emissions Code: OTHER				
2.	Future Effective Date of Allowable Emissions:				
3.	Requested Allowable Emissions and Units:				
	8.4 E-06 lb/MMBtu				
4.	Equivalent Allowable Emissions: 0.0045 lb/hour 0.0021 tons/year				
5.	Method of Compliance (limit to 60 characters):				
	EPA Method 101A				
6.	5. 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: 6.5 E-06 lb/MMBtu
4.	Equivalent Allowable Emissions: 0.0024 lb/hour 0.0026 tons/year
5.	Method of Compliance (limit to 60 characters): EPA Method 101A
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):
	Based on tire-derived fuel firing.

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Emissions	Unit	Information	Section	1	of	3	
TIMETORIVE	~ 1111	THITOTHRUDO	CCCLOIL		U	-	

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

1. Pollutant Emitted: PB
2. Total Percent Efficiency of Control: 98 %
3. Potential Emissions: 0.0166 lb/hour 0.0377 tons/year
4. Synthetically Limited? [x] Yes [] No
5. Range of Estimated Fugitive/Other Emissions:
[] 1
6. Emission Factor: See Part B
Reference:
7. Emissions Method Code:
[]0 []1 []2 []3 []4 []5
8. Calculation of Emissions (limit to 600 characters):
See Part B
See Part B
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):
0.0377 TPY total for both boilers
·

Emissions	Unit Information	Section	1	_ of _	3
Allowable	Emissions (Polluts	int ident	tified or	front	nage)

1.	Basis for Allowable Emissions Code: OTHER
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units:
	2.7 E-06 lb/MMBtu
4.	Equivalent Allowable Emissions: 0.0021 lb/hour 0.0092 tons/year
5.	Method of Compliance (limit to 60 characters):
	EPA Method 12
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):
	Based on biomass firing.

В.

A.

Basis for Allowable Emissions Code: OTHER	
Future Effective Date of Allowable Emissions:	;
Requested Allowable Emissions and Units:	
8.9 E-07 lb/MMBtu	
Equivalent Allowable Emissions: 0.0005 lb/hour 0.0006	tons/year
Method of Compliance (limit to 60 characters):	
EPA Method 12	
Pollutant Allowable Emissions Comment (Desc. of Related Operating Method (limit to 200 characters):	/Mode)
Based on No.2 fuel oil firing.	
	Future Effective Date of Allowable Emissions: Requested Allowable Emissions and Units: 8.9 E-07 lb/MMBtu Equivalent Allowable Emissions: 0.0005 lb/hour 0.0006 Method of Compliance (limit to 60 characters): EPA Method 12 Pollutant Allowable Emissions Comment (Desc. of Related Operating Method (limit to 200 characters):

29

Emissions	Unit In	formatio	n Section	1	_ of _	3
Allowable	Emissio	ns (Pollu	tant iden	tified or	fron	t nage)

A	
\boldsymbol{a}	•

1.	Basis for Allowable Emissions Code: OTHER
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units:
	5.1 E-06 lb/MMBtu
4.	Equivalent Allowable Emissions: 0.0027 lb/hour 0.0013 tons/year
5.	Method of Compliance (limit to 60 characters):
	EPA Method 12
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):
	Based on coal firing.
	_

В.

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: 0.0155 lb/hour 0.017 tons/year
5.	Method of Compliance (limit to 60 characters):
	EPA Method 12
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):
	Based on tire-derived fuel firing.

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	ot	3	

Beryllium Compounds

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

1. Pollutant Emitted: H021
2. Total Percent Efficiency of Control: 98 %
3. Potential Emissions: 0.0031 lb/hour 0.0013 tons/year
4. Synthetically Limited? [x] Yes [] No
5. Range of Estimated Fugitive/Other Emissions:
[] 1 [] 2 [] 3 to tons/yr
6. Emission Factor: 5.9 E-06 lb/MMBtu
Reference: See Part B
7. Emissions Method Code:
[]0 []1 []2 []3 []4 []5
8. Calculation of Emissions (limit to 600 characters):
5.9E-06 lb/MMBtu x 530 MMBtu/hr = 0.0031 lb/hr
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):
0.0013 TPY total for both boilers.
)

A.

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 0.0009 tons/year
5.	Method of Compliance (limit to 60 characters):
	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.

B.

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: 0.0031 lb/hour 0.0015 tons/year
5.	Method of Compliance (limit to 60 characters):
	EPA Method 104
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):
	Based on coal firing.

29

Emissions Unit Information Section 1 of 3 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:
	4.5 E-07 lb/MMBtu
4.	Equivalent Allowable Emissions: 0.0002 lb/hour 0.0002 tons/year
5.	Method of Compliance (limit to 60 characters):
	EPA Method 104
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):
	Equivalent Allowable Emissions: 0.00017 lbs/hr; 0.00019 tons/yr. Based on tire-derived fuel 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 (limit to 200 characters):	of Related	-	g Method/Mode)

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	of	J	

Particulate Matter - Total

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

1. Po	llutant E	mitte	d: PM												
2. To	tal Perce	nt Ei	fficiency	of C	ontro	1:				9	8 %				
3. Po	tential Er	nissi	ons:			22.8	lb	/hou	r			99.8	6 tons/y	ear	
4. Sy	nthetical	ly Li	mited?	[x] Y	es	[]	No					•	
5. R	ange of E	Stim	ated Fug	itive/	'Othe	r Em	issi	ons:							
[] 1	[] 2	[] 3	_				_ to			_ tons/y	r	
6. Eı	nission F	acto	r:		0.03	lb/MN	ИВtu	ı		•				·	
R	eference:	40 CI	FR 60 Subj	oa Da							٠				
7. Eı	nissions l	Meth	od Code	e :											
[] 0	Į.] 1	[] 2		[] 3		[] 4		[x]5		
8. Ca	lculation	of E	missions	(lim	it to 6	500 c	hara	acter	s):				,		
0	.03 lb/MN	lBtu	x 760 MN	Btu/	hr = 2	2.8 lb	/hr				•				
							d								
						•									
	llutant Po					sions	Co	mme	ent (limit	to 20	00 cha	racters):		
123.	12 TPY to	tal fo	or both b	oilers	•										
						-	•								
				*							A4.22 M				

Emissions Unit Information Section _____ of ____3 Allowable Emissions (Pollutant identified on front page)

A.

1.	Basis for Allowable Emissions Code: RULE
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units:
	0.03 lb/MMBtu
4.	Equivalent Allowable Emissions: 22.8 lb/hour 99.86 tons/year
5.	Method of Compliance (limit to 60 characters):
	Annual Stack testing using EPA Method 5.
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):
	40 CFR 60, Subpart Da. Maximum lb/hr based on biomass firing.

В.

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):

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Particulate Matter - PM10

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

<u> </u>
1. Pollutant Emitted: PM10
2. Total Percent Efficiency of Control: 98 %
3. Potential Emissions: 22.8 lb/hour 99.86 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 760 MMBtu/hr = 22.8 lb/hr
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):
123.12 TPY total for both boilers

Α.

1.	Basis for Allowable Emissions Code: RULE
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units:
	0.03 lb/MMBtu
4.	Equivalent Allowable Emissions: 22.8 lb/hour 99.86 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):
	40 CFR 60, Subpart Da. 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:		. 1.1
4.	Equivalent Allowable Emissions:	lb/hour	tons/year
5.	Method of Compliance (limit to 60 characters):		
6.	Pollutant Allowable Emissions Comment (Desc. (limit to 200 characters):	of Related Ope	rating Method/Mode)

Emissions	Unit	Information Sec	tion 1	οf
F11113210112	Omi	midimation Sec	uon .	UI

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

1. Pollutant Emitted: so2	
2. Total Percent Efficiency of Control:	%
3. Potential Emissions: 636 lb/hour	339 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:	the second of the
[]0 []1 []2 []3	[]4 [x]5
8. Calculation of Emissions (limit to 600 characters): 1.2 lb/MMBtu x 530 MMBtu/hr = 636.0 lb/hr	
9. Pollutant Potential/Estimated Emissions Comment (339.0 TPY total for both boilers	(limit to 200 characters):

missions Unit Information Section llowable Emissions (Pollutant identifi A.		3 page)		Boiler No. Sulfur Dioxide
Basis for Allowable Emissions Code RULE	d ·		· · · · · · .	
2. Future Effective Date of Allowable I	Emissions:		- , 	
3. Requested Allowable Emissions and 1.2 lb/MMBtu	Units:			
4. Equivalent Allowable Emissions:	636	lb/hour	339 to	ns/year
5. Method of Compliance (limit to 60 c	•	s		<u>:</u>
 Pollutant Allowable Emissions Commodition (limit to 200 characters): 40 CFR 60, Subpart Da. Based on commodition 		of Related C	perating Meth	iod/Mode)
В.				<u> </u>
Basis for Allowable Emissions Code	OTHER			
2. Future Effective Date of Allowable I	Emissions:			
3. Requested Allowable Emissions and 0.05 lb/MMBtu	Units:	<u> </u>		
4. Equivalent Allowable Emissions:	30	o lb/hour	32.	7 tons/year
5. Method of Compliance (limit to 60 c	•	r		
6. Pollutant Allowable Emissions Comp (limit to 200 characters):	ment (Desc.	of Related C)perating Meth	nod/Mode)

29

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Based on No.2 fuel oil firing and BACT.

9651011Y/F1/TVEU1PA6a

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Emissions	Unit Information Section	- 1	of _	3
Allowable	Emissions (Pollutant ident	tified o	n front	page)

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1.	Basis for Allowable Emissions Code: OTHER
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units:
	See Comment
4.	Equivalent Allowable Emissions: 76 lb/hour 66.6 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 and Units: 0.1 lb/MMBtu 24-hr avg; 0.02 lb/MMBtu, annual average. Based on bagasse firing and fuel sulfur content.

В.

1. Basis for Allow	able Emissions Code:	OTHER		the way.
2. Future Effective	Date of Allowable Em	issions:	\$	
3. Requested Allo	wable Emissions and U	nits:		
4. Equivalent Allo	wable Emissions:	444	lb/hour	339 tons/year
5. Method of Corr Continuous SO2	pliance (limit to 60 cha	racters):		
6. Pollutant Allow (limit to 200 ch	able Emissions Comme aracters):	nt (Desc. o	of Related Opera	ting Method/Mode)
•	wable emissions: 1.2 lb lerived fuel firing.	/MMBtu, 24	-hr avg.; 0.4 lb/M	MBtu, annual avg.

Emissions	Unit Information Section	1	of	3.	
	Chie inioi manun Schiun	-	O.		

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

1. Pollutant Emitted: NOx
2. Total Percent Efficiency of Control: 40 %
3. Potential Emissions: 88.2 lb/hour 386.3 tons/year
4. Synthetically Limited? [x] Yes [] No
5. Range of Estimated Fugitive/Other Emissions:
[] 1 [] 2 [] 3 to tons/yr
6. Emission Factor: 0.116 lb/MMBtu
Reference: Based on NOx control
7. Emissions Method Code:
[]0 []1 [x]2 []3 []4 []5
8. Calculation of Emissions (limit to 600 characters): 0.116 lb/MMBtu x 760 MMBtu/hr = 88.2 lb/hr
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): 477.1 TPY total for both boilers

	ssions Unit Information Section 1 of 3 Nitrogen Oxides wable Emissions (Pollutant identified on front page)
	Basis for Allowable Emissions Code: ESCPSD
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units: 0.116 Ib/MMBtu
4.	Equivalent Allowable Emissions: 88.2 lb/hour 386.3 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
В.	
1.	Basis for Allowable Emissions Code: ESCPSD
<u> </u>	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units:

6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode)

72 lb/hour

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4. Equivalent Allowable Emissions:

(limit to 200 characters):

Based on No.2 fuel oil firing

5. Method of Compliance (limit to 60 characters):

Limit fuel oil burning to 24.9% for any single boiler

78.5 tons/year

	issions Unit Information Section 1 of 3 owable Emissions (Pollutant identified on front page)	2)			
1.	Basis for Allowable Emissions Code: ESCPSD		. ·		Territoria.
2.	Future Effective Date of Allowable Emissions:				
3.	Requested Allowable Emissions and Units: 0.15 Ib/MMBtu				
<u> </u>	Equivalent Allowable Emissions: 79.5 lb/ho	our		37.6 tons	s/year
- 5.	Method of Compliance (limit to 60 characters): Limit coal burning to 10.8% for any single boiler			·	
6	Pollutant Allowable Emissions Comment (Desc. of Re	alated (Inarati	ng Metho	d/Mode)
6.	Pollutant Allowable Emissions Comment (Desc. of Relating to 200 characters): Based on coal firing	elated (Operati	ng Metho	od/Mode)
	(limit to 200 characters):	elated (Operati	ng Metho	od/Mode)
3.	(limit to 200 characters):	elated (Operati	ng Metho	od/Mode)
3. 1.	(limit to 200 characters): Based on coal firing Pagin for Allowable Emissions Code:	elated (Operati	ng Metho	od/Mode)
3. 1.	(limit to 200 characters): Based on coal firing Basis for Allowable Emissions Code: ESCPSD	elated (Operati	ng Metho	od/Mode)
3. 1. 2.	(limit to 200 characters): Based on coal firing Basis for Allowable Emissions Code: ESCPSD Future Effective Date of Allowable Emissions: Requested Allowable Emissions and Units: 0.116 lb/MMBtu	elated (Operati		tons/year

Method of Compliance: Annual stack testing using EPA Method 7 or 7E. Limit TDF

Firing to 25% on an annual basis. Based on tire-derived fuel firing.

Emissions	Unit	Information	Section	1	of	3
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H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

1. Pollutant Emitted: co
2. Total Percent Efficiency of Control: %
3. Potential Emissions: 266 lb/hour 1,165.1 tons/year
4. Synthetically Limited? [x] Yes [] No
5. Range of Estimated Fugitive/Other Emissions:
[] 1 [] 2 [] 3 to tons/yr
6. Emission Factor: 0.35 lb/MMBtu
Reference: Boiler design
7. Emissions Method Code:
[]0
8. Calculation of Emissions (limit to 600 characters):
0.35 lb/MMBtu x 760 MMBtu/hr = 266 lb/hr
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):
1,436.4 TPY total for both boilers

A	
/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: 266 lb/hour 1,165.1 tons/year
5.	Method of Compliance (limit to 60 characters):
	Continuous CO monitor
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:

120 lb/hour

130.9 tons/year

5. Method of Compliance (limit to 60 characters):
Limit fuel 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 Inform	nation Sec	tion	1	of	3
Allowable	Emissions (Pollutant	identific	ed on	front	page)

Δ	
4	•

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: 106 lb/hour 50.1 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 5.4% entire facility; 10.8% for any single boiler.	

B.

	<u> </u>
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: 129.5 lb/hour 141.8 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 limited to 25% 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: 45.6 lb/hour 219.15 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 760 MMBtu/hr = 45.6 lb/hr
·
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):
Based on biomass firing

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Emișsions	Unit Information Section	1	_ of _	3
Allowable	Emissions (Pollutant ident	ified on	front	page)

A.

1.	Basis for Allowable Emissions Code: ESCNAA				
2.	Future Effective Date of Allowable Emissions				
3.	Requested Allowable Emissions and Units:				
	See Comment				
4.	Equivalent Allowable Emissions: 45	.6	lb/hour	219.15 to	ns/year
5.	Method of Compliance (limit to 60 characters)	:			,
	Annual stack test using EPA Method 25 or 25A				
6.	Pollutant Allowable Emissions Comment (Des (limit to 200 characters):	c.	of Related	d Operating Meth	od/Mode)
	Based on biomass firing, 67% bagasse heat in Requested Allowable Emissions and Units: 0.0 waste.			•	

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: 18 lb/hour 19.6 tons/year
5.	Method of Compliance (limit to 60 characters): Limit fuel burning to 24.9% for any single boiler
_	• ` ` `

29

	Ssions Unit Information Section 1 of 3 Volatile Organic Compounds wable Emissions (Pollutant identified on front page)
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: 15.9 lb/hour 7.52 tons/year
5.	Method of Compliance (limit to 60 characters): Limit coal burning to 10.8% for any single boiler
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on coal firing
В.	
1.	Basis for Allowable Emissions Code: ESCNAA
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units: 0.04 lb/MMBtu
4.	Equivalent Allowable Emissions: 14.8 lb/hour 16.2 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 limited to 25% for any single boiler.

29

Fluorides - Total

1	of	3	
•	OI	J	

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

1. Pollutant Emitted: FL
2. Total Percent Efficiency of Control: %
3. Potential Emissions: 12.7 lb/hour 5.25 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 530 MMBtu/hr = 12.7 lb/hr
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):
Based on coal firing

	ssions Unit Information Section 1 of 3 Fluorides - Total wable Emissions (Pollutant identified on front page)
1.	Basis for Allowable Emissions Code: OTHER
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units: See Comment
4.	Equivalent Allowable Emissions: 0.0038 lb/hour 0.004 tons/year
<u> </u>	Method of Compliance (limit to 60 characters):
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):
	Allowable emissions: 6.3E-06 lb/MMBtu. Based on No.2 fuel oil firing.
В.	
1.	Basis for Allowable Emissions Code: OTHER
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units:

6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode)

12.7 lb/hour

4. Equivalent Allowable Emissions:

(limit to 200 characters):

Based on coal firing.

5. Method of Compliance (limit to 60 characters): EPA Method 13A or 13B once every 5 years.

5.25 tons/year

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

A	
\mathbf{r}	•

1.	Basis for Allowable Emissions Code: OTHER
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units:
	See Comment
4.	Equivalent Allowable Emissions: 0.24 lb/hour 0.26 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 tire-derived fuel firing
В.	

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. (limit to 200 characters):	of Related Operating Met	nod/Mode)

Emissions	Unit	Information Section	1	of	3

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

1. Pollutant Emitted: SAM				
2. Total Percent Efficiency of Control: %				
3. Potential Emissions: 5.6 lb/hour 5.9 tons/year				
4. Synthetically Limited? [x] Yes [] No				
5. Range of Estimated Fugitive/Other Emissions:				
[] 1 [] 2 [] 3totons/yr				
6. Emission Factor: 0.01 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):				
0.0049 lb/MMBtu x 390 MMBtu/hr = 1.91 lb/hr; 0.010 lb/MMBtu x 370 MMBtu/hr = 3.7 lb/hr. Total = 1.91 + 3.7 = 5.6 lb/hr				
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):				
Based on biomass/TDF firing.				

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Δ.	

1.	Basis for Allowable Emissions Code: OTHER	
2.	Future Effective Date of Allowable Emissions:	
3.	Requested Allowable Emissions and Units:	
	0.0049 lb/MMBtu,24-hr	
4.	Equivalent Allowable Emissions: 3.72 lb/hour 3.26 tons/year	
5.	Method of Compliance (limit to 60 characters):	
	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. Annual average based on 0.00098 lb/MMBtu.	

B.

1. Basis for Allowable Emissions Code:	OTHER	
2. Future Effective Date of Allowable En	missions:	
3. Requested Allowable Emissions and U 0.0025 lb/MMBtu	Jnits:	
4. Equivalent Allowable Emissions:	1.5 lb/hour 1.64 tons/ye	ear .
5. Method of Compliance (limit to 60 cha	naracters):	
6. Pollutant Allowable Emissions Commo (limit to 200 characters):	nent (Desc. of Related Operating Method/Mode)
Based on No.2 fuel oil firing		

Emissions	Unit Inform	nation Section	n1	0	f3
Allowable	Emissions ((Pollutant ide	entified	l on fr	ont page)

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: 5.3	}	lb/hour	2.5 tons/year
5.	Method of Compliance (limit to 60 characters):			
6.	Pollutant Allowable Emissions Comment (Desc. (limit to 200 characters):	. (of Related O	perating Method/Mode)
	Based on coal firing			

B.

A.

Basis for Allowable Emissions Code: OTHER
 Future Effective Date of Allowable Emissions:
 Requested Allowable Emissions and Units:

 0.01 lb/MMBtu

 Equivalent Allowable Emissions: 3.7 lb/hour 4.1 tons/year
 Method of Compliance (limit to 60 characters):

 Method 8 once every 5 years

 Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):

Based on tire derived fuel firing. Annual average based on 0.0066 lb/MMBtu.

Emissions Unit Information Section 1 of 3		3	of	1	Section	Init Information	Emissions
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Boiler No.1

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

	Visible Emissions Subtype: VE20		
. .	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	%	
I .	Method of Compliance: EPA Method 9		
5.	Visible Emissions Comment (limit to 200 characters): 40 CFR 60 Subpart Da		
	ole Emissions Limitations: Visible Emissions Limitation of		
l.	Visible Emissions Subtype:		
<u>isit</u> 1.			
l.	Visible Emissions Subtype:	%	
1. 	Visible Emissions Subtype: Basis for Allowable Opacity: [] Rule [] Other Requested Allowable Opacity Normal Conditions: % Exceptional Conditions:	%	
1. 2. 3.	Visible Emissions Subtype: Basis for Allowable Opacity: [] Rule [] Other Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: Maximum Period of Excess Opacity Allowed: min/hour	%	
1. 2. 3.	Visible Emissions Subtype: Basis for Allowable Opacity: [] Rule [] Other Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: Maximum Period of Excess Opacity Allowed: min/hour Method of Compliance:	%	
1. 2. 3.	Visible Emissions Subtype: Basis for Allowable Opacity: [] Rule [] Other Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: Maximum Period of Excess Opacity Allowed: min/hour Method of Compliance:	%	

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Emissions Unit Information Section	1 of	3
aminorous Citit Milorimeton Section		

Boiler No.1

J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

Cont	inuous Monitoring System Continuou	s Monitor 1 of 6			
1.	Parameter Code: VE 2. Pollutant(s):				
2.	CMS Requirement: [x] Rule [] Other				
3.	Monitor Information: Monitor Manufacturer: Durag Model Number: D-R281-31-AV Serial Number: 31500				
4.	Installation Date: 05 Dec 1995				
5.	5. Performance Specification Test Date:				
6.	Continuous Monitor Comment (limit to 40 CFR 60, Subpart Da	200 characters):			
Cont	inuous Monitoring System Continuou Parameter Code: EM	2. Pollutant(s): NOx			
2.	CMS Requirement: [x] Rule []	Other			
3.	Monitor Information: Monitor Manufacturer: Thermo Environment Model Number: 42D	onmental Instruments Serial Number: 42D-53361-296			
, 4 .	Installation Date: 05 Dec 1995				
5.	Performance Specification Test Date:				
6.	Continuous Monitor Comment (limit to	200 characters):			

Emissions Unit Information Section	1 0	f	3
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J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

<u>Cont</u>	inuous Monitoring System Continuou	s Monitor3_ of _	6
1.	Parameter Code: EM	2. Pollutant(s):	SO2
2.	CMS Requirement: [] Rule [x]	Other	
3.	Monitor Information: Monitor Manufacturer: Thermo Environ Model Number: 43B	nmental Instruments Serial Number:	43B-53359-296
4.	Installation Date: 05 Dec 1995		
5.	Performance Specification Test Date:		
6.	Continuous Monitor Comment (limit to 40 CFR 60, Subpart Da	o 200 characters):	
Cont	inuous Monitoring System Continuou	s Monitor 4 of	6
1.	Parameter Code: EM	2. Pollutant(s):	CO
2.	CMS Requirement: [] Rule [x]	Other	
3			
J.	Monitor Information: Monitor Manufacturer: Thermo Environment of the Model Number: 48	onmental Instruments Serial Number:	48-53434-296
4.	Monitor Manufacturer: Thermo Enviro		48-53434-296
	Monitor Manufacturer: Thermo Environment Model Number: 48		48-53434-296

	1		3
Emissions Unit Information Section		of .	. •

J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

Cont	inuous Monitoring System Continuou	is Monitor 5 of 6					
1.	Parameter Code: O2	2. Pollutant(s):					
2.	2. CMS Requirement: [X] Rule [] Other						
3.	3. Monitor Information: Monitor Manufacturer: Yokogowa Model Number: 2A8C Serial Number: JJ113PA188						
4.	Installation Date: 05 Dec 1995						
5.	Performance Specification Test Date:						
6.	6. Continuous Monitor Comment (limit to 200 characters): 40 CFR 60, Subpart Da						
<u>Cont</u>	Continuous Monitoring System Continuous Monitor 6 of 6						
1.	Parameter Code: CO2	2. Pollutant(s):					
2.	CMS Requirement: [] Rule [x]	Other					
3.	Monitor Information: Monitor Manufacturer: California Anal Model Number: ZRH1	lytical Serial Number: N5B3528T					
4.	4. Installation Date: 05 Dec 1995						
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.

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 1 Unknown SO₂ [x] C]E] Unknown NO₂ [x]C1E 1 Unknown 4. Baseline Emissions: PM lb/hour tons/year SO₂ lb/hour tons/year NO₂ tons/year 5. PSD Comment (limit to 200 characters):

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

Supplemental Requirements for All Applications

f 1 Au 1 1 D	
[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: [] 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.	Al	tern	ative Methods of Operation
	[]	Attached, Document ID: [] Not Applicable
11.	Al	tern	ative Modes of Operation (Emissions Trading)
	[]	Attached, Document ID: [] Not Applicable
12.	Ide	entii	ication of Additional Applicable Requirements
	[]	Attached, Document ID: [] Not Applicable
13.	Co	mp!	liance Assurance Monitoring Plan
	[]	Attached, Document ID: [] Not Applicable
14.	Ac	id F	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:
	[]	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.

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	Emissions	Unit	Informa	tion	Section		2	of 3	
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B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

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 Identific	ation Number: [] No Corr	esponding 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 Commen						
74 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

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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:	74 MW
5.	Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:	°F seconds °F

Emissions Unit Operating Capacity

			•
Maximum Heat Input Rate:		760	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 20	0 characters):		
Maximum heat input rates: Biomass - 760 N 530 MMBtu/hr; Tire-derived fuel - 370 MMB	•	2 Fuel Oil -	600 MMBtu/hr; Coal -

Emissions Unit Operating Schedule

Requested Maximum Operating Sc			
24	hours/day	7	days/week
52	weeks/yr	8,760	hours/yr

D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Rule Applicability An opplications involving n	on Title-V sources	. See Instructi	ions.)	J	•
·	•				

Emissions Unit Information Section	2	of 3	
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<u>List of Applicable Regulations</u> (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

40 CFR 60, Subpart Da 40 CFR 60, Subparts Ea and Cb

Emissions Unit Information Section	2	of	3
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E. EMISSION POINT (STACK/VENT) INFORMATION (Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow I	Diagram:
BLR 2	
2. Emission Point Type Code:	
[x]1 []2 []3	[] 4
3. Descriptions of Emissions Points Comprising to 100 characters per point):	this Emissions Unit for VE Tracking (limit
·	
4. ID Numbers or Descriptions of Emission Uni	its with this Emission Point in Common:
5. Discharge Type Code:	
[]D	[]P
[]R [x]V []W	
6. Stack Height:	200 feet
	.
7. Exit Diameter:	8 feet
8. Exit Temperature:	295 °F

Source Information Section	2	of	3	
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9.	Actual Volumetric Flow Rate:		246,000	acfm
10.	Percent Water Vapor:			%
11.	Maximum Dry Standard Flo	ow Rate:		dscfm
12.	Nonstack Emission Point H	eight:		feet
13.	Emission Point UTM Coord	dinates:		
	Zone: 17 East (km)	; 544.2	North	(km): 2968.0
14.	Emission Point Comment (imit to 200 charae	cters):	
	Stack parameters based on	biomass.		

Emissions	Unit	Information	Section	2	of	.3	

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

Segment Description and Rate: Segment ____ of ____

Segment Description (Process/Fuel Tyle) (limit to 500 characters):	pe and Associated Operating Method/Mode)
Electric Utility Boiler - Bagasse	
2. Source Classification Code (SCC):	-01-011-01
3. SCC Units:	
Tons Burned	·
4. Maximum Hourly Rate:	5. Maximum Annual Rate:
89.412	783,144
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
0.03	0.8
9. Million Btu per SCC Unit:	
	8
10. Segment Comment (limit to 200 chara	acters):
Maximum Percent Sulfur: 0.025. Millio = 965,647 TPY	on Btu per SCC Unit: 8.5. Total bagasse both boilers

Segment Description and Rate: Segment 2 of 5

Segment Description (Process/Fuel Ty) (limit to 500 characters):	pe and Associated Operating Method/Mode)
Electric Utility Boiler - Wood Fired Boiler	
2. Source Classification Code (SCC):	1-01-009-03
3. SCC Units: tons burned	
4. Maximum Hourly Rate: 69.091	5. Maximum Annual Rate: 605,236
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 0.03	8. Maximum Percent Ash: 3.2
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 chara Maximum Percent Sulfur: 0.025. Tota	acters): I wood waste both boilers = 623,055 TPY

Emissions Unit Information Section	2	of	3
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F. SEGMENT (PROCESS/FUEL) INFORMATION (Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment ___3 __ of ___5

 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):	-01-005-01					
3. SCC Units:						
1,000 gal burned						
4. Maximum Hourly Rate:	5. Maximum Annual Rate:					
4.348	13,942					
6. Estimated Annual Activity Factor:						
,						
7 10						
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:					
0.05						
9. Million Btu per SCC Unit:						
	138					
10. Segment Comment (limit to 200 char	acters):					
,	,					
This represents 24.9% oil firing on a h	otal No.2 Fuel Oil both boilers = 13,942,251 gal/yr. neat input basis.					

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 - Bituminous Coal - Spreader Stoker

2. Source Classification Code (SCC):

1-01-002-04

3. SCC Units:

Tons Burned

4. Maximum Hourly Rate:

22.084

5. Maximum Annual Rate:

18,221

- 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 both boilers = 18,221 TPY. This represents 5.4% coal burning on a heat input basis.

Emissions Unit Information	Section	2	of	3	
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F. SEGMENT (PROCESS/FUEL) INFORMATION (Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment ____ of ____

 Segment Description (Process/Fuel Ty- (limit to 500 characters): 	pe and Associated Operating Method/Mode)
Solid Waste - Tire-Derived Fuel	
	
2. Source Classification Code (SCC):	-01-012-01
<u> </u>	
3. SCC Units:	
· Tons Burned	·
4. Maximum Hourly Rate:	5. Maximum Annual Rate:
11.94	43,687
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
1.2	4.9
9. Million Btu per SCC Unit:	:
	31
10. Segment Comment (limit to 200 chara	acters):
Total TDF both boilers = 43,687 TPY.	This represents 16.5% TDF on a heat input basis
(6.6% 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)

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

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Mercury Compounds

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

Pollutant Detail Information:

1. Pollutant Emitted: H114
2. Total Percent Efficiency of Control: 25 %
3. Potential Emissions: 0.0046 lb/hour 0.0168 tons/year
4. Synthetically Limited? [x] Yes [] No
5. Range of Estimated Fugitive/Other Emissions:
[]1 []2 []3totons/yr
6. Emission Factor: See Part B
Reference:
7. Emissions Method Code:
[]0
8. Calculation of Emissions (limit to 600 characters):
See Part B
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):
0.0168 TPY total both boilers

Emissions	Unit Information Section	2	of _	3	_
Allowable	Emissions (Pollutant ident	tified	on front	page)	

1	١.
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1.	Basis for Allowable Emissions Code: OTHER
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units:
	5.7 E-06 lb/MMBtu
4.	Equivalent Allowable Emissions: 0.0043 lb/hour 0.0168 tons/year
5.	Method of Compliance (limit to 60 characters):
	EPA Method 101A
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):
	Emission limit is for bagasse. Emission limit for wood waste is 2.9E-07 lb/MMBtu.

В.	
1.	Basis for Allowable Emissions Code: OTHER
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units:
	2.4 E-06 lb/MMBtu
4.	Equivalent Allowable Emissions: 0.0014 lb/hour 0.0063 tons/year
5.	Method of Compliance (limit to 60 characters):
	EPA Method 101A
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):
	Based on No.2 fuel oil firing.

Emissions Un	it Information Section	2	of _	3
Allowable Em	<u>issions (Pollutant ident</u>	ified	on front	page)

1	١.
r	7 .

1.	Basis for Allowable Emissions Code: OTHER
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units:
	8.4 E-06 lb/MMBtu
4.	Equivalent Allowable Emissions: 0.0045 lb/hour 0.0021 tons/year
5.	Method of Compliance (limit to 60 characters):
	EPA Method 101A
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):
	Based on coal firing

В.

D.	
1.	Basis for Allowable Emissions Code: OTHER
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units: 6.5 E-06 lb/MMBtu
4.	Equivalent Allowable Emissions: 0.0024 lb/hour 0.0026 tons/year
5.	Method of Compliance (limit to 60 characters): EPA Method 101A
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: PB			_
2. Total Percent Efficiency	of Control:	98 %	
3. Potential Emissions:	0.0166 lb/hc	our 0.037	7 tons/year
4. Synthetically Limited?	[x] Yes [] No	
5. Range of Estimated Fug	itive/Other Emissions	: :	
. []1 . []2	[]3	to	_ tons/yr
6. Emission Factor:	See Part B		
Reference:	·		
7. Emissions Method Code	:		
[]0 []1	[]2 []3	3 [] 4	[]5
8. Calculation of Emissions	(limit to 600 charact	ers):	
See Part B			
9. Pollutant Potential/Estim		nent (limit to 200 cha	racters):
0.0377 TPY total for both b	oilers		

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

1	۱	
I	x .	

1.	Basis for Allowable Emissions Code: OTHER
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units:
	2.7 E-06 lb/MMBtu
4.	Equivalent Allowable Emissions: 0.0021 lb/hour 0.0092 tons/year
5.	Method of Compliance (limit to 60 characters):
	EPA Method 12
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: 8.9 E-07 lb/MMBtu		
4.	Equivalent Allowable Emissions: 0.0005 lb/hou	ır 0.0006	tons/year
5.	Method of Compliance (limit to 60 characters): EPA Method 12		
6.	Pollutant Allowable Emissions Comment (Desc. of Relation (limit to 200 characters):	ed Operating Method	d/Mode)

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Based on No.2 fuel oil firing.

Emissions	Unit Inform	nation Se	ction	2	of _	3
Allowable	Emissions	(Pollutant	t identifi	ed on	front	page)

Α.	•
1.	Basis for Allowable Emissions Code: OTHER
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units:
	5.1 E-06 lb/MMBtu
4.	Equivalent Allowable Emissions: 0.0027 lb/hour 0.0013 tons/year
5.	Method of Compliance (limit to 60 characters):
	EPA Method 12
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):
	(mint to 200 characters).

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: 0.0155 lb/hour	0.017 tons/year
5.	Method of Compliance (limit to 60 characters):	
	EPA Method 12	
6.	Pollutant Allowable Emissions Comment (Desc. of Related Opera (limit to 200 characters):	ting Method/Mode)
	Based on tire-derived fuel firing.	

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/	of	3
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Beryllium Compounds

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: 98 %
3. Potential Emissions: 0.0031 lb/hour 0.0013 tons/year
4. Synthetically Limited? [x] Yes [] No
5. Range of Estimated Fugitive/Other Emissions:
[]1 []2 []3totons/yr
6. Emission Factor: 5.9 E-06 lb/MMBtu
Reference: See Part B
7. Emissions Method Code:
[]] 0 [] 1 [] 2 [] 3 [] 4 [] 5
8. Calculation of Emissions (limit to 600 characters):
5.9E-06 lb/MMBtu x 530 MMBtu/hr = 0.0031 lb/hr
3.3E-00 IS/RINDER X 330 RINDER/III — 0.3031 IS/III
9 Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):
0.0013 TPY total for both boilers.

Emissions Unit Info	rmation Section	2	_ of _	3
Allowable Emission	s (Pollutant ident	tified on	front	page)

A.	,
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	0.0009 tons/year
5. Method of Compliance (limit to 60 characters):	
EPA Method 104	
6. Pollutant Allowable Emissions Comment (Desc. of Related (limit to 200 characters):	Operating Method/Mode)
Based on No.2 fuel oil firing.	
	<u> </u>
1. 2. 3. 5.	Future Effective Date of Allowable Emissions: Requested Allowable Emissions and Units: 3.5 E-07 lb/MMBtu Equivalent Allowable Emissions: 0.0002 lb/hour Method of Compliance (limit to 60 characters): EPA Method 104 Pollutant Allowable Emissions Comment (Desc. of Related (limit to 200 characters):

В.

nissions Code: 01	THER			
of Allowable Emis	sions:			
	is:			
Emissions:	0.0031	lb/hour	0.0015 tons/yea	ar
e (limit to 60 chara	cters):			
	(Desc. o	f Related Op	erating Method/Mode)	1
	of Allowable Emis Emissions and Unit E-06 lb/MMBtu Emissions: e (limit to 60 chara	of Allowable Emissions: Emissions and Units: E-06 lb/MMBtu Emissions: 0.0031 e (limit to 60 characters):	of Allowable Emissions: Emissions and Units: E-06 lb/MMBtu Emissions: 0.0031 lb/hour e (limit to 60 characters): missions Comment (Desc. of Related Op	of Allowable Emissions: Emissions and Units: E-06 lb/MMBtu Emissions: 0.0031 lb/hour 0.0015 tons/yea e (limit to 60 characters): missions Comment (Desc. of Related Operating Method/Mode)

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Emissions	Unit Information Section	. 2	_ of _	3	
Allowable	Emissions (Pollutant ident	tified on	front	nage	7_

A.	
1.	Basis for Allowable Emissions Code: OTHER
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units:
	4.5 E-07 lb/MMBtu
4.	Equivalent Allowable Emissions: 0.0002 lb/hour 0.0002 tons/year
5.	Method of Compliance (limit to 60 characters):
	EPA Method 104
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):
	Equivalent Allowable Emissions: 0.00017 lbs/hr; 0.00019 tons/yr. Based on tire-derived fuel 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. (limit to 200 characters):	of Related	Operating Meth	od/Mode)

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Particulate Matter - Total

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

Pollutant Detail Information:

1. Pollutant Emitted: PM
2. Total Percent Efficiency of Control: 98 %
3. Potential Emissions: 22.8 lb/hour 99.86 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 Subpa 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 760 MMBtu/hr = 22.8 lb/hr
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): 123.12 TPY total for both boilers

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

Α.	·
1.	Basis for Allowable Emissions Code: RULE
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units:
	0.03 lb/MMBtu
4.	Equivalent Allowable Emissions: 22.8 lb/hour 99.86 tons/year
5.	Method of Compliance (limit to 60 characters):
	Annual Stack testing using EPA Method 5.
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):
	40 CFR 60, Subpart Da. Maximum lb/hr based on biomass firing.

В.

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

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2	of	3
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Particulate Matter - PM10

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

Pollutant Detail Information:

1. Pollutant Emitted: PM10			
2. Total Percent Efficiency of C	ontrol:	98 %	
3. Potential Emissions:	22.8 lb/hour	99.86 tons/yea	ır
4. Synthetically Limited? [x] Yes [] No		-
5. Range of Estimated Fugitive	Other Emissions:		
[]1 []2 [to tons/yr	
6. Emission Factor:	0.03 lb/MMBtu		
Reference: 40 CFR 60 Subpart D	a		
7. Emissions Method Code:	. =		
[]0 []1 [] 2 [] 3	[]4 [x]5	
8. Calculation of Emissions (lim	it to 600 characters):		
0.03 lb/MMBtu x 760 MMBtu/	·		
9. Pollutant Potential/Estimated	Emissions Comment (1	limit to 200 characters):	
123.12 TPY total for both boilers	·	•	,

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A.	vable Emissions (I onutant identified on front page)	
1.	Basis for Allowable Emissions Code: RULE	
2.	Future Effective Date of Allowable Emissions:	
3.	Requested Allowable Emissions and Units:	
	0.03 lb/MMBtu	
4.	Equivalent Allowable Emissions: 22.8 lb/hour 99.86 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):	
	40 CFR 60, Subpart Da. Maximum lb/hr based on biomass firing.	

B.

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. (limit to 200 characters):	of Related Operating	Method/Mode)
1		

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

Pollutant Detail Information:

1.	Pol	lutant	En	nitte	d: sc)2			-				-					
2.	To	tal Per	rcen	it Ef	ficienc	y of C	ontrol	:					%					
3.	Pot	ential	En	issi	ons:			636	lb/	hou	r			33	y tons/ye	ar		
4.	Sy	ntheti	call	y Li	mited?	[x] Ye	es	[]	No							
5.	Ra	inge o	fEs	stim	ated Fu	ugitive,	Othe	r Emis	sio	ns:								_
	[] 1		[] 2	[] 3					_ to			_ tons/yr			
6.	En	nissio	n Fa	icto	r:		1.2	Ib/MMI	Btu					•				
	Re	eferen	ce: 4	40 CI	FR 60 Sı	ıbpart D	a										7	
7.	En	nissio	ns N	1eth	od Co	de:							· ·					
	[]0		[] 1	[] 2	[] 3		[] 4		[x]5			
8.	Cal	culati	on o	of E	missio	ns (lim	it to 6	00 ch	ara	cter	rs):		,					
	1.	.2 lb/M	IMB	tu x	530 MI	MBtu/h	r = 63	6.0 lb/l	hr					•				
9.	Pol	lutant	Ро	tent	ial/Esti	imated	Emis	sions (Coı	mm	ent (limit	to 20	0 cha	racters):			
3	39.0	TPY	tota	l for	both b	oilers												
							-											
							<u>.</u>											

Emissions	Unit Information	Section	2	of _	3
Allowable	Emissions (Polluta	nt ident	ified o	n front	nagel

1	۱	
r	A	•

1.	Basis for Allowable Emissions Code: RULE
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units:
	1.2 lb/MMBtu
4.	Equivalent Allowable Emissions: 636 lb/hour 339 tons/year
5.	Method of Compliance (limit to 60 characters):
	Limit coal burning to 5.4% for facility fuel analysis
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):
	40 CFR 60, Subpart Da. 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: 0.05 lb/MMBtu
4.	Equivalent Allowable Emissions: 30 lb/hour 32.7 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.

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Emissions	Unit Information Section	2	of	3
<u>Allowable</u>	Emissions (Pollutant ident	tified o	n front	page)

Δ.	

1.	Basis for Allowable Emissions Code: OTHER
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units:
	See Comment
4.	Equivalent Allowable Emissions: 76 lb/hour 66.6 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 and Units: 0.1 lb/MMBtu 24-hr avg; 0.02 lb/MMBtu, annual average. Based on bagasse firing and fuel sulfur content.

В.

1.	Basis for Allowable Emissions Code: OTHER
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units: See Comment
4.	Equivalent Allowable Emissions: 444 lb/hour 339 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.; 0.4 lb/MMBtu, annual avg. Based on tire-derived fuel firing.

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Emissions	Unit	Information Section	2	of	3
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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: 40 %								
3. Potential Emissions: 88.2 lb/hour 386.3 tons/year								
4. Synthetically Limited? [x] Yes [] No								
5. Range of Estimated Fugitive/Other Emissions:								
[] 1 [] 2 [] 3 to tons/yr								
6. Emission Factor: 0.116 lb/MMBtu								
Reference: Based on NOx control								
7. Emissions Method Code:								
[]0								
8. Calculation of Emissions (limit to 600 characters):								
0.116 lb/MMBtu x 760 MMBtu/hr = 88.2 lb/hr								
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):								
477.1 TPY total for both boilers								

Emissions Unit Information Section	2	_ of _	3		
Allowable Emissions (Pollutant iden	tified or	n front	page)	

1.	Basis for Allowable Emissions Code: ESCPSD
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units:
	0.116 lb/MMBtu
4.	Equivalent Allowable Emissions: 88.2 lb/hour 386.3 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:

0.126 | lb/MMBtu

4. Equivalent Allowable Emissions: 72 | lb/hour 78.5 | 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

Emissions Unit Information Section	2	of _	3 .
Allowable Emissions (Pollutant ident	ified	on front	page)

_	_	 _	 	_

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:

79.5 lb/hour

37.6 tons/year

5. Method of Compliance (limit to 60 characters):

Limit coal burning to 10.8% for any single boiler

6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):

Based on coal firing

В.

- 1. Basis for Allowable Emissions Code: ESCPSD
- 2. Future Effective Date of Allowable Emissions:
- 3. Requested Allowable Emissions and Units:

0.116 lb/MMBtu

4. Equivalent Allowable Emissions:

42.9 lb/hour

47 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):

Method of Compliance: Annual stack testing using EPA Method 7 or 7E. Limit TDF Firing to 25% on an annual basis. Based on tire-derived fuel firing.

Emissions Unit Information Section 2 of 3	3
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H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1.	Pol	lutant Er	nitte	ed: co									•	
2.	Tot	al Perce	nt E	fficiency	of Conti	ol:					%		•	
3.	Pot	ential En	nissi	ons:		26	66 ll	o/hour	-			1,165.1	tons/year	
4.	Sy	nthetical	ly Li	mited?	[x]	Yes	[]]	No					
5.	Ra	nge of E	stim	ated Fug	itive/Otl	ner E	miss	ions:						· .
	[] 1	[] 2	[]3					_ to			tons/yr	
6.	En	nission F	acto	r:	0.3	5 lb/i	MMBt	บ						
	Re	ference:	Boile	r design										
7.	En	nissions l	Meth	od Code	e:				٠					
	[] 0	[] 1	[x]	2	[] 3		[] 4		[]5	
8.	Cal	culation	of E	missions	(limit to	600	cha	racters	 s):					-
	0.	.35 lb/MM	Btu	x 760 MN	1Btu/hr =	266 I	b/hr							·
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):														
1,	,436	.4 TPY to	otal f	or both b	oilers				•				·	

Emissions	Unit	Information	Section _	2	_ of _	3	
Allowable	Emis	sions (Pollut	tant ident	ified or	front	nage)	

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: 266 lb/hour 1,165.1 tons/year
5.	Method of Compliance (limit to 60 characters):
	Continuous CO monitor
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):
	Based on biomass firing
	·

В.

- 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:

120 lb/hour

130.9 tons/year

5. Method of Compliance (limit to 60 characters):

Limit fuel 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 _	3
Allowable	Emissions (Pollutant ident	ified	on front	page)

•	
Α.	

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: 106 lb/hour 50.1 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 5.4% entire facility; 10.8% for any single 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: 129.5 lb/hour 141.8 tons/year
5.	Method of Compliance (limit to 60 characters):
	EPA Method 10 annually.

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: 45.6 lb/hour 219.15 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 760 MMBtu/hr = 45.6 lb/hr				
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):				
Based on biomass firing				

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Emissions Unit Information Section 2 of 3 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:
See Comment

4. Equivalent Allowable Emissions:

45.6 lb/hour

219.15 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, 67% bagasse heat input - 33% wood waste heat input.
Requested Allowable Emissions and Units: 0.06 lb/MMBtu bagasse; 0.04 lb/MMBtu wood

В.

waste.

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:

18 lb/hour

19.6 tons/year

5. Method of Compliance (limit to 60 characters):
Limit fuel 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 3 Allowable Emissions (Pollutant identified on front page)

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•	А	

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: 15.9 lb/hour 7.52 tons/year
5.	Method of Compliance (limit to 60 characters):
	Limit coal burning to 10.8% for any single boiler
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):
	Based on coal firing

В.

1. Basis for Allowable Emissions Code: ESCNAA

2. Future Effective Date of Allowable Emissions:

3. Requested Allowable Emissions and Units:

0.04 lb/MMBtu

4. Equivalent Allowable Emissions:

14.8 lb/hour

16.2 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 limited to 25% for any single boiler.

Fluorides - Total

of 3	
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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: 12.7 lb/hour 5.25 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 530 MMBtu/hr = 12,7 lb/hr
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):
Based on coal firing

1	١		
I		•	

1.	Basis for Allowable Emissions Code: OTHER
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units:
	See Comment
4.	Equivalent Allowable Emissions: 0.0038 lb/hour 0.004 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):
	Allowable emissions: 6.3E-06 lb/MMBtu. 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:

12.7 lb/hour

5.25 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	Ouit mor	manon Sec	uon	01 _	
Allowable	Emissions	(Pollutant	identified	on front	page)
Α.					

1.	Basis for Allowable Emissions Code: OTHER	
2.	2. Future Effective Date of Allowable Emissions:	
3.	3. Requested Allowable Emissions and Units:	
	See Comment	
4.	4. Equivalent Allowable Emissions: 0.24 lb/hour	0.26 tons/year
5.	5. Method of Compliance (limit to 60 characters):	
	EPA Method 13A or 13B once every 5 years.	
6.	6. Pollutant Allowable Emissions Comment (Desc. of Related (limit to 200 characters):	Operating Method/Mode)
	Based on tire-derived fuel firing	

В.

Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emission	ons:	
3. Requested Allowable Emissions and Units:		·
	11 /1	
4. Equivalent Allowable Emissions:	lb/hour	tons/year
Equivalent Allowable Emissions: Method of Compliance (limit to 60 characters)		tons/year

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Emissions Unit Information Section	2	of	3	
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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: 5.6 lb/hour 5.9 tons/year
4. Synthetically Limited? [x] Yes [] No
5. Range of Estimated Fugitive/Other Emissions:
[] 1
6. Emission Factor: 0.01 lb/MMBtu
Reference: See Part B
7. Emissions Method Code:
[]0
8. Calculation of Emissions (limit to 600 characters):
0.0049 lb/MMBtu x 390 MMBtu/hr = 1.91 lb/hr; 0.010 lb/MMBtu x 370 MMBtu/hr = 3.7 lb/hr. Total = $1.91 + 3.7 = 5.6$ lb/hr
•
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):
Based on biomass/TDF firing.
· ·

Emissions	Unit Information Section	_ 2	_ of _	3
Allowable	Emissions (Pollutant ident	ified or	front	page)

A.	
1.	Basis for Allowable Emissions Code: OTHER
2.	Future Effective Date of Allowable Emissions:
3.	Requested Allowable Emissions and Units:
	0.0049 lb/MMBtu,24-hr
4.	Equivalent Allowable Emissions: 3.72 lb/hour 3.26 tons/year
5.	Method of Compliance (limit to 60 characters):
	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. Annual average based on 0.00098 lb/MMBtu.
R.	

1.	Basis for Allowable Emissions Code: OTHER			•
2.	Future Effective Date of Allowable Emissions:			÷
3.	Requested Allowable Emissions and Units: 0.0025 lb/MMBtu	. •		* * *
4.	Equivalent Allowable Emissions: 1.5	lb/ho	ur 1.64	tons/year
5.	Method of Compliance (limit to 60 characters):			
6.	Pollutant Allowable Emissions Comment (Desc. (limit to 200 characters): Based on No.2 fuel oil firing	of Rela	ted Operating Metho	d/Mode)

Emissions	Unit Information Section	2	_ of _	3
Allowable	Emissions (Pollutant ident	tified or	n front	nagel

Α.	

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: 5.3 lb/hour 2.5 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 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:

3.7 lb/hour

4.1 tons/year

5. Method of Compliance (limit to 60 characters):
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. Annual average based on 0.0066 lb/MMBtu.

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

VIDIO	ole 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): 40 CFR 60, Subpart Da
Visih	ole 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):
	Visible Emissions Comment (limit to 200 characters):

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	2	3
Emissions Unit Information Section	of	

Boiler No.2

J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

Cont	tinuous Monitoring System Continuou	s Monitor 1 of 6
1.	Parameter Code: VE	2. Pollutant(s):
2.	CMS Requirement: [x] Rule []	Other
3.	Monitor Information: Monitor Manufacturer: Durag Model Number: DR281-31-AV	Serial Number: 31505
4.	Installation Date: 05 Dec 1995	
5.	Performance Specification Test Date:	
6.	Continuous Monitor Comment (limit to 40 CFR 60, Subpart Da	o 200 characters):
	Parameter Code: EM	2. Pollutant(s): NOx
2.	CMS Requirement: [x] Rule []	
3.	Monitor Information: Monitor Manufacturer: Thermo Environment Model Number: 42D	onmental Instruments Serial Number: 42D-53474-296
	1/1040/11/4/11/001: 420	Schal 140110ch. 425-55474-250
4.	Installation Date: 05 Dec 1995	Schai Number 425-56474-250
4 . 5 .		SCHAI INDIMOCL TES-SST/T-ESV

	2	3
Emissions Unit Information Section	of	

Boiler No.2

J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

Cont	inuous Monitoring System Continuou	as Monitor 3 of 6			
1.	Parameter Code: EM	2. Pollutant(s): SO2			
2.	CMS Requirement: [] Rule [x] Other				
3.	Monitor Information: Monitor Manufacturer: Thermo Environmental Instruments Model Number: 43B Serial Number: 43B-53227-295				
4.	Installation Date: 05 Dec 1995				
5.	Performance Specification Test Date:				
6.	Continuous Monitor Comment (limit to 200 characters): 40 CFR 60, Subpart Da				
Cont	inuous Monitoring System Continuou	us Monitor4 of6			
1.	Parameter Code: EM	2. Pollutant(s): CO			
2.	CMS Requirement: [] Rule [x]	Other			
3.	Monitor Information: Monitor Manufacturer: Thermo Environmental Instruments Model Number: 48 Serial Number: 48-53334-296				
4.	Installation Date: 05 Dec 1995				
5.	Performance Specification Test Date:				
6.	Continuous Monitor Comment (limit to	o 200 characters):			

			^ 2		3
Emissions	Unit Informati	on Section		of	•

Boiler No.2

J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

Cont	inuous Monitoring System Continuou	as Monitor <u>5</u> of <u>6</u>		
1.	Parameter Code: O2	2. Pollutant(s):		
2.	CMS Requirement: [x] Rule [] Other			
3.	Monitor Information: Monitor Manufacturer: Yokogowa Model Number: ZA8C	Serial Number: JJ113PA189		
4.	Installation Date: 05 Dec 1995			
5.	Performance Specification Test Date:	·		
6.	6. Continuous Monitor Comment (limit to 200 characters): 40 CFR 60, Subpart Da			
1	inuous Monitoring System Continuou			
1.	Parameter Code: CO2	2. Pollutant(s):		
2.	CMS Requirement: [] Rule [x]	Other		
3.	Monitor Information: Monitor Manufacturer: Model Number: ZARH1 California Analytical Serial Number: N5B3535T			
4.	Installation Date: 05 Dec 1995			
5.	Performance Specification Test Date:			
6.	Continuous Monitor Comment (limit to	o 200 characters):		
		• •		

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

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

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

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 1 Unknown [x]C SO₂]E Unknown NO₂] E 1 Unknown [x]C Baseline Emissions: PM lb/hour tons/year SO₂ lb/hour tons/year NO₂ tons/year 5. PSD Comment (limit to 200 characters):

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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:				
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: [] Not Applicable		
11.	Alternative Modes of Operation (Emissions Trading)				
	[]	Attached, Document ID: [] Not Applicable		
12.	Ide	entif	fication of Additional Applicable Requirements		
	[]	Attached, Document ID: [] Not Applicable		
13.	Со	mp	liance Assurance Monitoring Plan		
	[]	Attached, Document ID: [] Not Applicable		
14.	Ac	id F	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:		
	[]	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:
[] 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.

Emissions U	Jnit '	Information	Section	3	of 3	

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): Fugitive Emissions from Biomass/Coal/Ash Handling							
2. Emissions Unit Identific	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):

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:

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

Maximum Heat Input Rate:		mmBtu/hr	
2. Maximum Incineration Rate:	lbs/hr	tons/day	
3. Maximum Process or Throughput Rate:	956,647	TPY - 25 %	
4. Maximum Production Rate:			
5. Operating Capacity Comment (limit to 20	00 characters):		,
956,647 TPY biomass; 18,221 TPY coal; 43	3,687 TPY TDF		

Emissions Unit Operating Schedule

1. Requested Maximum Operating S			
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.)					
			,		
. •					

Emissions Unit Information Section	3	of	3	
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<u>List of Applicable Regulations</u> (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

62-296.300(2)
62-296.300(3)

Emissions	Unit	Information	Section	3	of	3	

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: Fuel Handling System										
2.	En	nission Point	Ту	oe Code:	÷						
	[] 1	[] 2		[] 3			[x]	4
3.	3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):										
4.	4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:										
5.	Di [[scharge Type] D] R	[ode: x] F] V	[•	H W		[] P	· · · · · · · · · · · · · · · · · · ·
6.	Sta	ack Height:									feet
7.	Ex	kit Diameter:									feet
8.	Ex	kit Temperatu	ıre:	٠						77	°F

Source Information Sec	ction ³	of	3
Source Information Sec	ilion -	_ U.	_

Emissions	Unit	Information	Section	3	of	3	
CHRESHIN	Onn	IIIIOI IIIatioii	Section	•	O1	•	

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

Segment Description and Rate: Segment _____ of _____

Segment Description (Process/Fuel Ty (limit to 500 characters):	pe and Associated Operating Method/Mode)
Pulp & Paper and Wood Products; Fugit	ive Emissions
	•
2. Source Classification Code (SCC):	
3	-07-888-01
3. SCC Units:	
Tons Product	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:
	956,647
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 char-	acters).
Segment represents biomass handlin	g and storage operations.

Emissions	Unit Information Section	3	of	3
	Chit amoi mation Section			

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type and	Associated Operating Method/Mode)
(limit to 500 characters):	

Mineral Products; Fugitive Emissions

2. Source Classification Code (SCC):

3-05-888-01

3. SCC Units:

Tons Product

4. Maximum Hourly Rate:

5. Maximum Annual Rate:

18,221

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):

Segment represents coal handling and storage operations.

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

1. Pollutant Emitted	Primary Control Device Code	Secondary Control Device Code	4. Pollutant Regulatory Code
PM PM10			WP WP
		,	
			•
·			

Emissions	Unit Information	Section	3	of 3
THIII ISSIULIS	Ouit inioi manon	Section		UI -

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

<u>Visibl</u>	e Emissions Limitations: Visible Emissions Limitation 1 of 1
1.	Visible Emissions Subtype: VE
2.	Basis for Allowable Opacity: [x] Rule [] Other
3.	Requested Allowable Opacity Normal Conditions: 20. % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance: VE test using Method 9
5.	Visible Emissions Comment (limit to 200 characters): 62-296.320(4)(b)
1	
Visibl	e Emissions Limitations: Visible Emissions Limitation of
Visibl	le Emissions Limitations: Visible Emissions Limitation of Of Visible Emissions Subtype:
1.	Visible Emissions Subtype:
1. 2.	Visible Emissions Subtype: Basis for Allowable Opacity: [] Rule [] Other Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: %

	3	_	3
Emissions Unit Information Section		of	

Fuel/Ash Handling

J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

Cont	inuous Monitoring System Continuou	as 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	o 200 characters):
	· .	·
Cont	inuous Monitoring System Continuou	ns 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	o 200 characters):
	,	

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

(Regulated and Unregulated Emissions Units)

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

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

The emissions unit is undergoing PSD review as part of this application, or has [x]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.

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Increment Consuming for Nitrogen Dioxide? 2.

> 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.
- ſ 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 SO₂]E] C

Unknown NO_2 1E] Unknown

4. Baseline Emissions:

PM lb/hour tons/year SO₂ lb/hour tons/vear NO₂ 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
	[] Attached, Document ID:
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:
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.	Alter	native Methods of Operation
	[]	Attached, Document ID: [] Not Applicable
11.	Alter	native Modes of Operation (Emissions Trading)
	[]	Attached, Document ID: [] Not Applicable
12.	Ident	ification of Additional Applicable Requirements
	[]	Attached, Document ID: [] Not Applicable
13.	Com	pliance Assurance Monitoring Plan
	[]	Attached, Document ID: [] 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:
	[]	Not Applicable

PART B SUPPLEMENTAL INFORMATION FOR PERMIT APPLICATION OSCEOLA POWER LIMITED PARTNERSHIP

1.0 INTRODUCTION

Osceola Power Limited Partnership (Osceola Power) was issued a prevention of significant deterioration (PSD) permit in 1993 and an amendment in 1995 for construction of a 74 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 adjacent to the existing Osceola Farms sugar mill, east of Pahokee, Florida. The cogeneration system consists of two 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 Osceola Farms 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 original state construction permit (AC50-219795) and federal PSD permit (PSD-FL-197) were issued to Osceola Power on September 27, 1993. The permit was modified on October 16, 1995 (AC50-269980; PSD-FL-197A) to reflect certain design changes in the facility since the original permits were issued.

Osceola Power is now requesting authorization to utilize tire-derived fuel (TDF) as a supplemental fuel. TDF would be used primarily in the off-season when bagasse fuel is not available. 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 a supplemental fuel will help insure an adequate fuel supply is available to operate the facility 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 regulated pollutants, except for lead. A small increase in lead emissions is predicted due to

TDF utilization. All current permit limits for the facility will be retained, except in the case of lead. For lead, the increase in emissions is below the PSD significant emission rate. Therefore, PSD or nonattainment new source review do not apply to the modification.

This supplemental information report for the air construction permit application contains three additional sections. A description of the project, including air emission rates for TDF firing, 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 quality impact (dispersion modeling) analysis for hazardous/toxic air pollutants is presented in Section 4.0. Supportive information is contained in the appendices.

2.0 PROJECT DESCRIPTION

2.1 CURRENT COGENERATION FACILITY AIR PERMIT

Osceola Power was issued a state construction permit (AC50-219795) and federal PSD permit. (PSD-FL-197) on September 27, 1993, for the construction of a 60 MWe (gross) capacity biomass/coal-fired cogeneration facility. The permit was amended on April 8, 1994 to allow up to 65 MWe (gross) generating capacity. The permit was also amended on October 16, 1995 (AC50-269980; PSD-FL-197A) to allow up to 74 MWe (gross, 1-hour average) generating capacity and to update certain design information for the facility.

The cogeneration facility consists of two steam boilers and one steam turbine and associated equipment. Each boiler is capable of producing an average of 506,000 lbs/hr steam. During the sugar processing season, the cogeneration facility is to provide steam to the existing Osceola Farms sugar mill by burning primarily bagasse, which is the 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 current construction permit limits the maximum heat input to each of the two boilers to 760 million British thermal units per hour (MMBtu/hr) when firing biomass, 600 MMBtu/hr when No. 2 fuel oil, and 530 MMBtu/hr when firing low sulfur coal. Maximum annual heat input to the entire facility is limited to 8.208 x 10¹² Btu/yr. Maximum annual coal burning is limited to 18,221 tons per year (TPY), which is approximately 5.4 percent of the total maximum annual heat input.

The two new boilers are subject to federal new source performance standards (NSPS) for electric utility boilers (40 CFR 60, Subpart Da). Because the facility will burn wood waste potentially originating from residential sources, the boilers are also subject to a reporting and record keeping requirement under 40 CFR 60, Subparts Ea and Cb, which are the NSPS for municipal waste combustors. Because of the broad definition of municipal solid waste (MSW), wood waste is potentially classified as municipal solid waste. Because Osceola Power will limit the total amount of MSW fired in each boiler to less than 30 percent (weight basis) on a calendar quarter basis, no provisions of Subparts Ea and Cb will apply to the facility, other than the record keeping 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 PROPOSED REVISIONS TO AIR CONSTRUCTION PERMIT

Osceolà Power is requesting authorization to utilize tire-derived fuel (TDF) as a supplemental fuel. TDF would primarily be used in the off-season when bagasse is not available, but may also be used during the crop season to extend the bagasse fuel supply. During the off-season, the cogeneration facility will use primarily wood waste. The facility has not yet constructed any coal handling facilities, and therefore cannot presently burn coal. Therefore, the facility must rely on wood waste sources to supply the fuel needs during the off-season. However, wood waste is not a commodity fuel, and the supply may vary depending on a number of factors beyond the control of Osceola Power. As a result, Osceola Power is seeking alternative sources of fuel. TDF is a fuel that is available, clean burning, and utilization of TDF helps alleviate a large solid waste disposal problem in the state of Florida.

The use of TDF will not affect any current plant capacities, permit conditions or limitations (except for lead emissions). TDF burning can be accommodated within the current air emission limits for the facility. TDF is a cleaner fuel than coal, and therefore can replace coal as an alternate fuel. The remaining sections present information related to TDF burning, including firing rates and air emissions. Information presented in the 1995 construction permit application is not repeated herein, unless such information is affected by TDF utilization. A revised flow diagram for the facility is presented in Figure 2-3.

2.2.1 FUELS

Osceola 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 other fuels 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. It is requested that the use of TDF also be authorized as a supplemental fuel.

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 Osceola Power facility.

Fuel specifications for each fuel that may be utilized by the cogeneration facility, including TDF, 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 is 760 MMBtu/hr. Due to limitations of the fuel oil firing system, maximum heat input of No. 2 fuel oil is limited to 600 MMBtu/hr. Maximum heat input due to coal will be 530 MMBtu/hr. Biomass and fossil fuels may also be burned in combination, not to exceed a total heat input of 760 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 to each boiler will not exceed 25 percent on a weight basis (approximately 48 percent on a heat input basis), up to a maximum of 23,871 lb/hr (11.94 TPH and 370 MMBtu/hr).

On an annual basis, all fuels may be fired alone or in combination, not to exceed a total heat input for both boilers of 8.208 x 10¹² Btu/yr. Burning of No. 2 fuel oil will be limited to a total of 24.9 percent of the total annual heat input, and coal burning will be limited to 5.4 percent of the total annual heat input. TDF firing will be limited to 16.5 percent annually on a facility-wide basis (heat input basis) or 43,867 TPY total for the facility.

Four cases are shown in Table 2-2 to illustrate 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 8.208 x 10¹² Btu/yr for the entire facility (total both 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 7.727 x 10¹² Btu/yr, due to the different heat transfer efficiency for No. 2 fuel oil versus biomass. Similarly, under the worst-case coal firing case of firing coal at 5.4 percent of the total annual heat input, the annual heat input requirement for the entire facility becomes 8.098 x 10¹² Btu/yr. Under the worst-case TDF firing case of 16.5 percent of the total annual heat input (6.6 percent on a weight basis), the annual heat input for the entire facility is 8.208 x 10¹² Btu/yr.

2.2.2 FUEL HANDLING SYSTEM

A revised flow diagram of the fuel handling system is presented in Figure 2-4. The figure incorporates the use of TDF at the site. TDF will be stored at the site in an existing bermed area (see Figure 2-5). In order to accommodate TDF firing, a feed hopper and conveyor will be constructed to feed TDF material onto the boiler feed conveyor. The TDF will be moved by front end 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.

2.2.3 FACILITY PLOT PLAN

A plot plan of the Osceola Power cogeneration facility is presented in Figure 2-5. This diagram indicates the TDF storage area.

2.2.4 SIMULTANEOUS OPERATION OF THE COGENERATION AND SUGAR MILL BOILERS

The current construction permit contains a condition which limits the simultaneous operation of the cogeneration boilers and the sugar mill boilers. During the period from initial firing until commercial operation, the Osceola Power cogeneration boilers may operate simultaneously with the existing sugar mill 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 570,000 lb/hr steam (24-hour average) during this period, steam in excess of 570,000 lb/hr (24-hour-average) must be sent to the Osceola sugar mill, and the existing Osceola sugar mill boilers steam production must be reduced by an equivalent amount.

This period of simultaneous operation was not to exceed a total duration of 12 months, and simultaneous operation during this 12-month period was not occur on more than 120 calendar

days. After the first 12 months of cogeneration facility operation, the existing Osceola sugar mill boilers can be operated only when both cogeneration facility boilers are shutdown. The existing boilers are to be permanently disabled and made incapable of operation within three years of commercial startup of the cogeneration facility, but no later than January 1, 1999.

Osceola Power is requesting in a seperate letter that this period of simultaneous operation of the cogeneration boilers and the existing sugar mill boilers be extended through April 1, 1997.

Osceola Power will be requesting that the current construction permit be revised to reflect this change.

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 are subject to the federal NSPS for electric utility steam generating units (40 CFR 60, Subpart Da). The proposed 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. The proposed use of TDF will not affect this classification.

For resource recovery units under Subpart Da, SO₂ emissions are limited to 1.2 lb/MMBtu. TDF contains up to 1.2 percent sulfur, with potential SO₂ emissions of up to 1.6 lb/MMBtu. However, TDF will always be burned in combination with biomass, at amounts up to 25 percent on a weight basis. Under such conditions, published studies indicate significant SO₂ removal can be achieved, resulting in SO₂ emissions of less than 1.2 lb/MMBtu. Supportive information for this conclusion is provided in Attachment B. Source testing while firing TDF/biomass will be used to demonstrate compliance with this limit.

2.3.2 NSPS FOR VOLATILE ORGANIC LIQUID STORAGE TANKS

The distillate fuel oil storage tank at Osceola Power is subject to the record keeping 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. Osceola Power will comply with this requirement by maintaining tank specification information on file at the plant site.

2.3.3 NSPS FOR MUNICIPAL SOLID WASTE COMBUSTORS

EPA has recently promulgated revised NSPS for municipal waste combustors (MWCs). Three NSPS are potentially applicable to the Osceola Power 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 Osceola Power facility between December 2, 1989 and September 20, 1994. Therefore, Subparts Ea and Cb are potentially applicable to the facility.

Although Osceola Power 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 Osceola. 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.

Osceola Power is requesting 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. Such a condition will insure that Osceola Power does not become subject to the NSPS for MWCs.

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 Osceola Power boilers are presented in Table 2-3. The emission limits in terms of lb/MMBtu, lb/hr and tons per year (TPY) are all the same as currently permitted, except in the case of lead.

Emission limits for TDF firing have been developed based on available TDF analysis and considering the air pollution control equipment installed on the Osceola Power boilers. The TDF analysis and uncontrolled and controlled emission factors are presented in Table 2-4. Based on data from wood-fired boilers in the pulp and paper industry, it is believed that a significant SO₂ capture will occur in the fly ash when firing TDF in combination with biomass. This removal will be verified by stack testing as well as the continuous SO₂ monitor. If it is determined that the proposed SO₂ emission limit for TDF cannot be attained, the annual TDF quantity fired will be further limited to remain within the annual SO₂ emission limit for both boilers.

Maximum hourly emissions from each of the Osceola Power boilers for each fuel are presented in Table 2-5. 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 2-5. 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 total maximum annual emissions for each pollutant from both boilers, including the proposed TDF firing, are presented in Table 2-6. 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 2-6. The maximum annual emissions for any of the criteria/designated pollutants are not higher than currently permitted, except in the case of lead. The current permit limit for lead is 0.011 TPY, total for both boilers. The proposed lead emission limit, based on biomass/TDF firing, is 0.038 TPY.

2.4.2 EMISSIONS OF HAZARDOUS/TOXIC AIR POLLUTANTS

Emission factors for hazardous air pollutants (HAPs) and other air toxics for the Osceola Power facility have not changed since the 1995 application. The emission factors were obtained from various sources, as shown in Appendix A. Emission factors for HAPs and other air toxics, including those for TDF firing obtained from Table 2-4, are shown in Table 2-7. Maximum hourly emissions of HAPs are presented in Table 2-7, and maximum annual HAP emissions are presented in Table 2-8, and include the proposed TDF firing. Emissions of some HAPs/toxics increase due to the TDF firing, compared to biomass, No. 2 fuel oil, or coal firing.

2.5 FUGITIVE EMISSIONS OF PARTICULATE MATTER

Fugitive dust emissions from TDF handling are not expected, other than emissions from front end loader movement in the TDF storage area. Based upon the factors and controls presented in the 1995 original application for the Osceola Power facility, fugitive dust emissions due to vehicular traffic associated with TDF handling are estimated as follows:

8 hrs/day x 365 days/yr x 5 mph = 14,600 VMT/yr 14,600 VMT/yr x 0.48 lb/VMT / 2,000 lb/ton = 3.50 TPY

Table 2-1. Design Fuel Specifications^a for the Osceola Power Cogeneration Facility

	Bio	omass	No. 2 Fuel	Bituminous	Tire-Derived
Parameter	Bagasse	Wood Waste	Oil	Coal	Fuel
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 ba	sis percentag	e):			
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, Osceola Power Limited Partnership

	•	Heat			
		Transfer	Heat		
	Heat Input	Efficiency	Output	Fuel	Firing Rate
Fuel		<u>(%)</u>			
		Short-Term (per l			
	(MMBtu/hr)		(MMBtu/hr)		
Biomass - Bagasse	760	68	517	178,824	lb/hr
 Wood Waste 	760	68	517	138,182	
No. 2 Fuel Oil	600	85	510		gal/hr
Coal	530	85	451	44,167	
rire-Derived Fuel	370	68	252	23,871	lb/hr
	Annual Ave	erage (total two b	ooilers)		
	(Btu/yr)		(Btu/yr)		
NORMAL OPERATIONS			(,//		
Biomass	8.208E+12	68	5.581E+12	965,647	TPY ^a
lo. 2 Fuel Oil	0	85	0		gal/yr
Coal	0	85	0	0	TPY
ire-Derived Fuel	Ō	68	0	Ō	TPY
TOTAL	8.208E+12		5.581E+12		
4.9% OIL FIRING					
Biomass	5.803E+12	68	3.946E+12	682,706	TPY
lo. 2 Fuel Oil	1.924E+12	85	1.635E+12	13,942,251	.gal/yr
Coal	0	85	0		TPÝ
ire-Derived Fuel	0	68	0	0	TPY
TOTAL	7.727E+12		5.581E+12	-	
.4% COAL FIRING					
Biomass	7.661E+12	68	5.209E+12	901,294	TPY.
lo. 2 Fuel Oil	0	85	0		gal/yr
Coal	4.373E+11	85	3.717E+11	18,221	
ire-Derived Fuel	0	68	0	0	TPY
TOTAL	8.098E+12		5.581E+12		
6.5% TIRE-DERIVED F			1.0005 : 10	600 05-	TOVA
Biomass	6.854E+12	68	4.660E+12	623,055	
lo. 2 Fuel Oil	0	85	0		gal/yr
Coal	0	85	0	_	TPY
Fire-Derived Fuel	1.354E+12	68	9.209E+11	43,687	TPY
TOTAL	8.208E+12		5.581E+12		

[^]a Based on bagasse firing.

Notes: Total heat output required = 5

5.581E+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

[^]b Based on wood waste firing.

				Emission Lin	nit ^d (per boiler)				
	Biom	ass	No. 2	Oil _	Bit. C	oal	Tire-Deri	ved Fuel	Total Both
Pollutant	(lb/MMBtu)	(lb/hr)	(lb/MMBtu)	(lb/hr)	(lb/MMBtu)	(lb/hr)	(lb/MMBtu)	(lb/hr)	Boilers ^e (TPY)
Particulate (TSP)	0.03	22.8	0.03	18.0	0.03	15.9	0.03	11.1	123.1
Particulate (PM10)	0.03	22.8	0.03	18.0	0.03	15.9	0.03	11.1	123.1
Sulfur Dioxide									*
3-Hour Average	_	_		_	1.2	636.0	1.2	444.0	_
24-Hour Average	0.10	76.0	0.05	30.0	1.2	636.0	1.2	444.0	_
Annual Average	0.02ª	_	_	_	1.2ª	_	0.4	. -	339.0°
Nitrogen Oxides									
Annual Average	0.12^a	88.2ª	0.12ª	72.0 ^a	0.15ª	79.5*	0.116ª	42.9ª	477.1
Carbon Monoxide									
8-Hour Average	0.35	266.0	0.2	120.0	0.2	106.0	0.35	129.5	1,436.4
Volatile Organic Com	pounds								
Bagasse	0.06 ^b	45.6 ^b	0.03	18.0	0.03	15.9	0.04	14.8	219.2
Wood Waste	0.04°	30.4°				1			
Lead	2.7 x 10 ⁻⁵	0.002	8.9 x 10 ⁻⁷	0.0005	5.1 x 10 ⁻⁵	0.0027	4.2 x 10 ⁻⁵	0.016	0.038
Mercury									
Bagasse	5.7 x 10 ^{-6 b}	0.0043b	2.4 x 10 ⁻⁶	0.0014	8.4 x 10 ⁻⁶	0.0045	6.5 x 10 ⁻⁶	0.0024	0.0168
Wood Waste	0.29 x 10 ^{-6 c}	0.00022°							
Beryllium	_	· <u> </u>	3.5 x 10 ⁻⁷	0.00021	5.9 x 10 ⁻⁶	0.0031	4.5 x 10 ⁻⁷	1.7 x 10 ⁻⁴	0.0013
Fluorides	_	_	6.3 x 10 ⁻⁶	0.0038	0.024	12.7	6.5 x 10 ⁻⁴	0.24	2.08
Sulfuric Acid Mist	0.0049	3.72	0.0025	1.50	0.010	5.3	0.010	3.70	5.94

^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. 23 and 24.
c Emission limit for wood waste. subject to revision after testing pursuant to Specific Conditions Nos. 23 and 24.

d The emission limit shall be prorated when more than one type of fuel is burned in a boiler.

Limit heat input from No. 2 fuel to less than 25 percent of total heat input on a calendar quarter basis, coal to 18,221 tons and TDF to 43,687 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.

Compliance based on a 12-month rolling average.

Table 2-4. Summary of Tire Derived Fuel Analysis and Potential Emissions

					Highest	COD	Highest	
		. .		D C 0	Uncontrolled	ESP	Controlled	
ъ.		Reference 1	4 1 1	Reference 2	Emission Rate		Emission Rate	
Parameter	Analysis	lb/MMBtu	Analysis	lb/MMBtu	(lb/MMBtu)	(%)	(lb/MMBtu)	
	(% by wt.)	!	(% by wt.)					
Carbon	83.87		83.87					
Hydrogen	7.09		7.09				·	
Oxygen	2.17		2.17					
Nitrogen	0.24		0.24					
Sulfur	1.23	0.79	1.23	0.79	1.59 (SO2)		1.2	24-hr^b
							0.4	Annual^b
	4.70		4.70					
Ash	4.78		4.78					
Moisture	0.62		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	
Соррег			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	
Мегсигу			0.1	6.45E-06	6.45E-06	0	6.45E-06	b
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).

References:

b Based on sulfur capture achievable due to alkaline fly ash.

^{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 2-5. Maximum Hourly Emissions for Osceola Power Cogeneration Facility (per boiler)

		Biomass			No. 2 Fuel 6	Oit		Coal		Tire-	Derived Fuel			Maximum
Regulated Pollutant	Emission Factor (Ib/MMBtu)	Activity Factor (MMBtu/hr)	Maximum Emissions (lb/hr)	Emission Factor (Ib/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)	25%TDF/ 75% Biomass^d (lb/hr)	Emissions for any fuel (lb/hr)
Particulate (TSP)	0.03	760	22.8	0.03	600	18.0	0.03	530	15.9	0.03	370	11.1	22.8	22.8
Particulate (PM10)	0.03	760	22.8	0.03	600	18.0	0.03	530	15.9	0.03	370	11.1	22.8	22.8
Sulfur dioxide: 3-hour 24-hour	 0.10	 760	- <u></u> 76.0	0.05	600		1.2 1.2	530 530	636.0 636.0	 1.2	370	. <u>-</u> 444.0	 483.0	636.0 636.0
Nitrogen oxides^a	0.116	760	88.2	0.12	600	72.0	0.15	530	79.5	0.116	370	42.9	88.2	88.2
Carbon monoxide^b	0.35	760	266.0	0.2	600	120.0	0.2	530	106.0	0.35	370	129.5	266.0	266.0
Volatile organic compds. Bagasse Wood Waste	: 0.06 0.04	760 760		0.03	600	18.0	0.03	530	15.9	0.04	370	14.8	38.2	45.6
Lead	2.7E-06	760	0.0021	8.9E-07	600	0.00053	5.1E-06	530	0.0027	4.2E-05	370	0.0155	0.0166	0.0166
Mercury - Bagasse - Wood Waste	5.7E-06 2.9E-07	760 760		2.4E-06	600	0.00144	8.4E-06	530	0.0045	6.5E-06	370	0.0024	0.0046	0.0046
Beryllium		760	-	3.5E-07	600	0.00021	5.9E-06	530	0.0031	4.5E-07	370	1.7E-04	1.67E-04	0.0031
Fluorides	-	760	-	6.3E-06	600	0.0038	0.024	530	12.7	6.5E-04	370	0.24	0.24	12.7
Sulfuric acid mist^c	0.0049	760	3.72	0.0025	600	1.50	0.010	530	5.30	0.010	370	3.70	5.61	5.6
Total reduced sulfur	-	-		-	-		_	_	_		. <u>-</u>		-	-
Asbestos	-	-	. <u>-</u>	_	-	- -		_	-	-		. 		-
Vinyl Chloride	_	٠-	- - -	_	_	. <u>-</u>	-			_	. <u>-</u>	_	-	

[^]a 30-day rolling average.

[^]b 8-hour average.

[^]c 24-hour average.

[^]d Weight basis; 370 MMBtu/hr TDF and 390 MMBtu/hr biomass.

Table 2-6. Maximum Annual Emissions for Osceola Power Cogeneration Facility (total all boilers)

		Biomass		Alterna	te Fuel		Total
	Emission	Activity	Annual	Emission	Activity	Annual	Annual
Regulated	Factor	Factor	Emissions	Factor	Factor	Emissions	Emissions
Pollutant	(lb/MMBtu)	(E12 Btu/yr)	(TPY)	(lb/MMBtu)	(E12 Btu/yr)	(TPY)	(TPY)
•			100% Biomass				
Particulate (TSP)	0.03	8.208	123.12				123.12
Particulate (PM10)	0.03	8.208	123.12	-			123.12
Sulfur dioxide	0.02	8.208	82.08		_		82.08
Nitrogen oxides	0.116	8.208	476.06		_		476.06
Carbon monoxide	0.35	8.208	1,436.40	-			1,436.40
VOC - Bagasse	0.06	5.499 b	164.98	_			219.15
- Wood Waste	0.04	2.709 c	54.17	_	-		213.13
- wood waste	2.7E-06	8.208	0.011				0.011
	5.70E-06	5.499 b	0.011		_		
Mercury - Bagasse							0.0161
- Wood Waste	2.90E-07	2.709 c	0.00039				
Beryllium			-	-	-		
Fluorides				-		-	
Sulfuric acid mist	0.00098	8.208	4.02				4.02
			75.1% Biomass /	24.9% Fuel Oil			
Particulate (TSP)	0.03	5.803	87.05	0.03	1.924	28.86	115.91
Particulate (PM10)	0.03	5.803	87.05	0.03	1.924	28.86	115.91
Sulfur dioxide	0.02	5.803	58.03	0.05	1.924	48.10	106.13
Nitrogen oxides	0.116	5.803	336.57	0.12	1.924	115.44	452.01
Carbon monoxide	0.116	5.803	1,015.53	0.12	1.924	192.40	1,207.93
							•
VOC - Bagasse	0.06	3.888 b	116.64	0.03	1.924	28.86	183.80
- Wood Waste	0.04	1.915 c	38.30				
Lead	2.7E-06	5.803	0.0078	8.9E-07	1.924	0.0009	0.009
Mercury - Bagasse	5.70E-06	3.888 b	0.0111	2.4E-06	1.924	0.0023	0.0137
 Wood Waste 	2.90E-07	1.915 c	0.00028		٠.		
Beryllium				3.5E-07	1.924	0.00034	0.00034
Fluorides	-			6.27E-06	1.924	0.0060	0.0060
Sulfuric acid mist	0.00098	5.803	2.84	0.0025	1.924	2.41	5.25
			94.6% Biomass	5.4% Coal			
Dodievleto (TCD)	0.03	7.001			0.4272	6 56	124.47
Particulate (TSP)	0.03	7.661	114.92	0.03	0.4373	6.56	121.47
Particulate (PM10)	0.03	7.661	114.92	0.03	0.4373	6.56	121.47
Sulfur dioxide	0.02	7.661	76.61	1.2	0.4373	262.38	338.99
Nitrogen oxides	0.116	7.661	444.34	0.15	0.4373	32.80	477.14
Carbon monoxide	0.35	7.661	1,340.68	. 0.2	0.4373	43.73	1,384.41
VOC - Bagasse	0.06	5.133 b	153.99	0.03	0.4373	6.56	211.11
- Wood Waste	0.04	2.528 c	50.56				
Lead	2.7E-06	7.661	0.010	5.1E-06	0.4373	0.0011	0.0115
Mercury - Bagasse	5.70E-06	5.133 b	0.0146	8.4E-06	0.4373	0.0018	0.0168
- Wood Waste	2.90E-07	2.528 c	0.00037	0.4E-00	0.4373	0.0010	0.0100
	2.90⊏-07	. 2.520 C	0.00037		0.4070	0.0040	0.0040
Beryllium				5.9E-06	0.4373	0.0013	0.0013
Fluorides				0.024	0.4373	5.25	5.25
Sulfuric acid mist	0.00098	7.661	3.75	0.010	0.4373	2.19	5.94
			83.5% Biomass	16.5% Tire-Der	ived Fuel		
Particulate (TSP)	0.03	6.854	102.81	0:03	1.354	20.31	123.12
Particulate (PM10)	0.03	6.854	102.81	0.03	1.354	20.31	123.12
Sulfur dioxide	0.03	6.854	68.54	0.40	1.354	270.86	339.40
Nitrogen oxides	0.116	6.854	397.51	0.116	1.354	78.55	476.06
Carbon monoxide	0.35	6.854	1,199.39	0.35	1.354	237.01	1,436.40
VOC - Bagasse	0.06	4.592 b	137.76	0.04	1.354	27.09	210.08
 Wood Waste 	0.04	2.262 c	45.23				
Lead	2.7E-06	6.854	0.009	4.2E-05	1.354	0.0284	0.0377
Mercury - Bagasse	5.70E-06	4.592 b	0.0131	6.5E-06	1.354		0.0168
- Wood Waste	2.90E-07	2.262 c	0.00033	3.02 30		2.00.7	5.5.30
Beryllium		2.202 0	5.0000	4.5E-07	1.354	0.00030	0.00030
Fluorides				6.5E-04	1.354		0.00030
	0.00000	6.054	. 220				
Sulfuric acid mist	0.00098	6.854	3.36	0.0034	1.354	2.30	5.66

a Denotes maximum annual emissions for any fuel scenario.

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

b Represents 67% of total heat input.

c Represents 33% of total heat input.

d Maximum annual mercury emissions will be limited to 0.0168 TPY.

Table 2-7. Maximum Hourly Emissions of Hazardous/ Toxic Air Pollutants for Osceola Power Cogeneration Facility (per boiler).

		Biomass			No. 2 Fuel	Oil		Coal		Tire	-Derived Fu	el		Maximum Hourly	Maximum Hourty
Hazardous	Emission	Activity	Hourly	Emission	Activity	Hourly	Emission	Activity	Hourly	Emission	Activity	Hourly	25%TDF/	Emissions	Total
Air Pollutant	Factor (lb/MMBtu)	Factor (MMBtu/hr)	Emissions (lb/hr)	Factor (lb/MMBtu)		Emissions (lb/hr)	Factor (lb/MMBtu)		Emissions (lb/hr)	Factor (lb/MMBtu)		Emissions (lb/hr)	75% Biomass*a (lb/hr)	For Any Fuel (lb/hr)	Both Boil (lb/hr)
azardous Air Pollutar	nts														
cetaldehyde	7.8E-04	760	0.59		600	-	-	530		-	370	-	0.30	0.59	1.1
cetophenone	3.7E-06	760	0.00	-	600	-	-	530	-		370		0.0014	0.0028	0.005
crolein	6.5E-05	760	0.0494	- 45.03	600		2 405 05	530		- 455 20	370	2 45 22	0.025	0.049	0.09
Intimony	UD	760	0.0988	2.4E-07	600 600	1.4E-04 2.5E-05	3.49E-05	530 530	0.018 0.0029	6.45E-09 4.52E-06	370 370	2.4E-06 1.7E-03	2,39E-06 0.05	0.018 0.10	0.03 0.2
Vsenic Senzene	1.30E-04 1.3E-03	760 760	1.0	4.2E-08	600	· 2.5E-05	5.4E-06	530	0.0029	4.52E-05	370	1,72-03	0.03	0.10	1.9
eryllium	1.35-03	700	1.0	3.5E-07	600	2.1E-04	5.9E-06	530	3.1E-03	4.50E-07	370	1.67E-04	1.67E-04	0.0031	0.006
Cadmium	8.4E-07	760	8.38E-04	1.1E-07	600	6.6E-05	4.3E-07	530	2.3E-04	3.87E-06	370	1.4E-03	0.0018	0.0018	0.003
Carbon Disulfide	1.3E-04	760	0.0988	-	600	-		530		-	370	-	0.051	0.099	0.19
arbon Tetrachloride	8.0E-06	760	4.8E-03	-	600	· –		530	-	_	370		0.0023	0.0046	0.009
Chlorine	9.2E-04	760	7.0E-01	-	600	-		530		-	370		0.36	0,70	1.4
chloroform	4.7E-05	760	0.036	-	600	-	-	530	-	-	370	-	0.018	0.036	0.07
hromium	1.58E-04	760	0.120	6.7E-07	600	4.0E-04	1.66E-05	530	0.0088	6.45E-06	370	0.0024	0.064	0.12	0.2
hromium +6	3.17E-05	760	0.024	1.3E-07	600		3.1E-06	530	0.0016	-	370	-	0.012	0.024	0.04
cobalt	1.5E-07	760	1,14E-04	1.2E-05	600	0.0072	7.2E-05	530	0.038	3.23E-04	370	0.120	0.120	0.120	0.23
umene	1.8E-05	760	0.0137		600	-	-	530	-	-	370	-	0.0070	0.014	0.02
)i - n - butyl Phthalate	5.8E-05	760	0.044	-	600			530	-		370	-	0.023	0.044	0.08
thyl Benzene	3.9E-06	760	0.0030		600	-		530			370		0.0015	0.0030	0.005
ormaldehyde	1.3E-03	760	0.99	4.05E-04	600		2.2E-04	530	0.12	4.05E-04	370	0.150	0.66	0.99	1.9
Hexane	5.5E-04	760	0.418		600 600		7.05.55	530 530	41.87	9.81E-02	370 370	35.56	0.21 35.78	0.42 · 41.87	0.8 83.7
lydrogen Chloride	5.6E-04	- 760	0.43	6.37E-04			7.9E-02								
ead	2.7E-06	760	, 0.0021	8.9E-07	600	0.0005	. 5.1E-06	530 530	0.0027	4.19E-05	370 370	0.0155	0.0166	0.0166 · 0.28	0.033
Manganese	9.5E-05	760	0.072 0.0043	1.4E-07 2.4E-06	600 600	8.4E-05 0.0014	3.1E-07 .8.4E-06	530	1.6E-04 0.0045	6.45E-04 5.00E-06	370	0.24 0.0019	0.0041	0.0045	0.008 0.008
Mercury - Bagasse -Wood Waste	5.7E-06	760 760	2.20E-04	2.46-00	600	0.0014	. 0.4E-00	530	0.0045	5.002-00	3/0	0.0019	0.0041	. 0.0043	0.000
-wood waste	2.9E-07 1.5E-03	760	1.1400		600			530			370		0.59	1.14	2.2
	1.2E-05	760	0.0091		600		_		_	_	370	_	0.0047	0.0091	0.018
dethyl Ethyl Ketone		760	0.0091	_	600		_		_	_	370	_	0.34	0.65	1.3
dethyl Isobutyl Ketone dethylene Chloride	1.5E-03	760	1.14	_	600			530	_		370	_	0.59	1,14	2.2
ventylene Chloride Vapthalene	5.9E-04	760	0.45	_	600			530	-	_	370	_	0.23	0.45	0.9
vaporarene Vickel	6.3E-06	760	0.005	1.70E-06	600		1.0E-05	530	0.0053	3.87E-05	370	0.0143	0.0168		0.033
	4.1E-05	760	0.0312	1.702-00	. 600		1.02-03	530	0.0055	3.07 [-03	370	0.0143	0.016	0.031	0.06
Phenois	1.6E-06	760	0.0012	5.81E-05	600		8.6E-04	530	0.46		370	_	6.24E-04		0.9
Phosphorus POM	2.2E-07	760	1.67E-04	8.4E-06	600		0.UE-04	530	0.40	_	370	_	8.58E-05		0.01
Selenium	3.8E-06	760	0.0029	3.8E-07	600		5.34E-05	530	0.028	8.77E-05	370	0.025	0.027	0.028	0.05
Styrene	1.5E-05	760	0.0025	3.02-07	600		J.54E-05	530	0.020	0.172-00	370	0.020	0.0059		0.02
2, 3, 7, 8-TCDD(dioxin		760	4,56E-09	_	600		_	530	_	-			2.3E-09		9.1E-0
roluene	9.0E-05	760	0.068	_	600		_		_	_	370	_	0.035		0.13
I, 1, 1 Trichloroethane		760	0.13		600		_		-	_		_	0.066		0.2
Trichloroethylene	7.6E-06	760	0.006	·	600		-		-	_		_	0.0030		0,011
n&p Xylene	7.8E-06	760	0.0059		600		-		-			_	0.0030		0.011
Xylene	2.6E-06	760	0.0020	-	600		_	530	_	-	370	_	0.0010	0.0020	0.004
Tot	al HAPs ≃		8.34			0.68			42.56			36.13	40.41		
12 (r) (non-HAPs)	4 805 03	760	36.48	1.48E-02	600	8.88	4.8E-02	- 530	25.44	4.80E-02	370	17.76	36.48	36.48	72.9
Ammonia Bromine	4.80E-02 4.59E-05	760	0.035	6.97E-07	600		7.9E-04	530	0.42	7,00E-02	370	11.10	0.018		0.8
Sromine Flourine	- .58E-03	700	0.000	6.27E-06	600		0.024	530	12.72	6.45E-04	370	0.24	0.016		25.4
Sulfuric ecid	0.0049	760	3.72	2.50E-03	600		0.010	530	5.30	0.010	370	3.70	5.61		11.2
	0.0010		•											•	
Other Air Toxics	3.80E-04	760	0.289	_	600		_	530	_	_	370		0.148	0.289	0.57
Acetone Barium	5.20E-06	760	0.209	6.69E-07	600		7.44E-05		0.039	7.74E-06	370	0.0029	0.005		0.0
Bertzo(a)anthracene	7.53E-07	760	5.72E-04	0.032-01	600		7.442-03	530	0.035	1.142-00	370	0.0025	2.94E-04		0.001
	3.53E-07	760	2.68E-05	_	600		_		_	_	370		1,38E-05		5.37E-
Benzo(a)pyrene							-		_		370	-	0.014		0.0
Chrysene	3.53E-05	760	0.027	4 205 05	600 600		-		_	6.13E-04	370	0.23	. 0.28		0.0
Copper	1.48E-04	. 760	0.11	4.20E-05	600		-			0.132-04	370	0.23	0.050		0.1
ndium	1.27E-04	760	0.097	_			-	530	-	-	370	-	0.0008		0.00
odine	2.12E-06 9.20E-03	760 760	0.0016 6.99	-	600 600			530	-		370	-	3.59	6.99	13
sopropanol	9.20E-03 2.24E-07	760 760	1.7E-04	4.88E-07	600		8.83E-06		0.0047	4.52E-05	370	0.0167	0.0168		0.0
Nolybdenum		760 760	1.7E-04 4.5E-07	4.005-07	600		0.03E-00	. 530		₹.32€-03	. 370	Q.0107	2.30E-07		8.97E-
PAH	5.90E-10			-	600		-			-	370	_	0.0005		
Silver	1.40E-06	760	0.0011	-			-	530		-	370	-	0.0005	0.0011	0.00
fhallium	UD	760			600		0.035.00	530 530		£ 45F ~^	· 370	2 15 00	1.66E-05	0.0047	0.00
rin	3.65E-08	760	2.8E-05	3.30E-06	600		8.83E-06		0.0047	6.45E-09		2.4E-06			
fungsten	1.29E-08	760	9.8E-06		600		-	· 530		2 500 20	· 370	0.65.00	5.03E-06		1.96E-
Jranium		760	4 45 4	-	600		-	· 530		2.58E-08	370 370		9.5E-06 2.9E-04		1.9E- 5.9E-
/anadium	1.41E-07	760	1.1E-04	-	600		-			6.45E-07				2.9E-04	
Yttrium 	6.59E-08	760	5.0E-05		. 600		2.405.00	- 530		0.045.00	· 370		2.6E-05		1.0E-
Zinc	4.24E-04	760	0.32	6.69E-06	600		3.49E-04			9.81E-03			3.80		7.
Zirconium	4.12E-07	760	3.13E-04	-	600	-		- 530			. 370	_	1.8E-04	3.1E-04	6.3E-

Note: UD = undetectable levels in gas stream.
^a Weight basis.

Table 2-8. Maximum Annual Emissions of Harzardous/Toxic Air Pollutants for Osceola Power (total all boilers)

		Biomass		Alternate Fuel					
	Emission Activity Factor Factor		Annual Emissions	Emission Factor	Activity Factor	Annual Emissions	Annual Emissions		
Pollutant	(lb/MMBtu)	(E12 Btu/yr)	(TPY)	(lb/MMBtu)	(E12 Btu/yr)	(TPY)	(TPY)		
			100% Biomass						
azardous Air Pollutants			10070 510111000						
cetaldehyde	7.80E-04	8.208	3.20	_			3.20		
cetophenone	. 3.70E-06	8.208	0.015	-			0.015		
crolein	6.50E-05	8.208	0.27	-	-		0.27		
ntimony	UD	8.208	-	-	· -				
rsenic	6.79E-05	8.208	0.28	-	-	_	0.28		
enzene	1,30E-03	8.208	5.34	_	_		5.34		
eryllium admium	8.40E-07	8.208 8.208	0.0034	-		_	0.0034		
arbon Disulfide	1.30E-04	8.208	0.53	_		_	0.0034		
arbon Tetrachloride	6,00E-06	8.208	0.025	_			0.025		
hlorine	9,20E-04	8.208	3.78	-		_	3.78		
hloroform	4.70E-05	8.208	0.19	-	. <u></u>		0.19		
hromium	8.27E-05	8.208	0.34	-	-	_	0.34		
hromium +6	1.65E-05	8.208	0.068	-	-	_	0.068		
obalt	1.50E-07	8.208	6.2E-04	-	-	-	6.2E-04		
umene	1.80E-05	8.208	0.07	-			0.07		
i - n - butyl Phthalate	5.80E-05	8.208	0.24			-	0.24		
thyl Benzene	3.90E-06	8.208	0.016			_	0.016		
ormaldehyde Hexane	1.30E-03	8.208	5.34	-		-	5.34		
	5.50E-04 5.60E-04	8.208 8.208	2.26	_	-	-	2.26		
lydrogen Chloride ead		8.208	2.30	-		-	2.30		
ead Nanganese	2.70E-06 9.50E-05	8.208	0.011 0.39	-			0.011		
nanganese Mercury - Bagasse	5.70E-06	8.208	0.39				0.39		
-Wood Waste	2,90E-07	8,208	0.023	_		_	0.023		
Methanol	1.50E-03	8.208	6.16		_	_	6.16		
Methyl Ethyl Ketone	1.20E-05	8.208	0.049	_		_	0.049		
lethyl Isobutyl Ketone	8.60E-04	8,208	3.53		_		3.53		
lethylene Chloride	1.50E-03	8.208	6.16	_		_	6.16		
apthalene	5.90E-04	8.208	2.42	-	. · <u>-</u>		2.42		
lickel	6.30E-06	8,208	0.026	-	. <u>-</u>	_	0.026		
henois	4.10E-05	8,208	0.17				0.17		
hosphorus	1,60E-06	8,208	0.0066	· · · -		_	0.0066		
OM (Polycyclic Org. Matter)	2.20E-07	8.208	0.0009			_	0.0009		
Selenium	3.80E-06	8,208	0.016	-		_	0.016		
Styrene	1.50E-05	8.208	0.062	_	. <u></u>	_	0.062		
, 3, 7, 8 -TCDD (dioxin)	6.00E-12	8.208	2.5E-08	-		_	2.5E-08		
oluene	9.00E-05	8.208	0.37	_	. -	_	0.37		
, 1, 1 Trichloroethane	1.70E-04	8.208	0.70	-			0.70		
richloroethylene	7.60E-06	8.208	0.031	-		-	0.031		
n&p Xylene	7.80E-06	8.208	0.032	_	-		0.032		
Xylene	2.60E-06	8.208	0.011	-	-		0.011		
otal HAPs							44.411		
12 (r) (non-HAPs)									
mmonia	4.80E-02	8,208	196.99				196.99		
romine	4.59E-05	8,208	0.19				0.19		
lourine	7.002-00	8.208	0.13			_	0.19		
ulfuric acid	9.80E-04	8.208	4.02	-		_	4.02		
	0.002-04	0.230	1.02		_	_	4.02		
ther Air Toxics									
cetone	3.80E-04	8.208		-			1.56		
arium	5.20E-06	8.208	0.02		-		0.02		
enzo(a)anthracene	7.53E-07	8.208	0.0031				0.0031		
enzo(a)pyrene	3.53E-08	8.208	1.45E-04	-		-	1.45E-04		
hrysene	3.53E-05	8.208	0.14	-		-	0.14		
opper	8.02E-05	8.208	0.33	-		_	0.33		
dium	1.27E-04	8.208	0.52			·	0.52		
dine	2.12E-06	8.208	0.0087	-			0.0087		
opropanol	9.20E-03		37.76	·		-	37.76		
olybdenum	2.24E-07	8.208	9.19E-04	-			9.19E-04		
AH	5.90E-10	8.208	2.42E-06	-		-	2.42E-06		
ilver	1.40E-06	8.208	0.0057	-		-	0.0057		
hallium	UD	8.208		-					
in	3.65E-08	8.208	1.5E-04	-		-	1.5E-04		
ungsten	1.29E-08	8.208	5.3E-05	-	-	-	5.3E-05		
ranium	4 445	8.208	-	-					
anadium	1.41E-07	8.208	5.8E-04				5.8E-04		
ttrium ·	6.59E-08		2.7E-04	-			2.7E-04		
inc	4.24E-04	8.208	1.74		-		1.74		
irconium	4.12E-07	8,208	0.0017				0.0017		

Table 2-8. Maximum Annual Emissions of Harzardous/Toxic Air Pollutants for Osceola Power (total all boilers)

		Biomass		Alternate Fuel			A	
	Emission Factor	Activity	Annual	Emission Factor	Activity	Annual	Annual	
Pollutant	(lb/MMBtu)	Factor (E12 Btu/yr)	Emissions (TPY)	(lb/MMBtu)	Factor (E12 Btu/yr)	Emissions (TPY)	Emissions (TPY)	
	(10/10/10/2022)	(212 200)		(io/ilinibito)	(E.E. Bidayi)	(11.7)	(11 17	
			75.1% Biomass	/ 24.9% Fuel Oil				
Hazardous Air Pollutants	7.005.04							
Acetaldehyde Acetophenone	7.80E-04 3.70E-06	5.803 5.803	2.26 0.011	-	1.924 1.924	-	2.26	
Acrolein	6.50E-05	5,803	0.011		1,924	-	0.011 0.19	
Antimony	UD	5.803	0.13	2.40E-07	1.924	0.0002	0.0002	
Arsenic	6.79E-05	5.803	0.20	4.20E-08	1,924	4.0E-05	0.20	
Benzene	1.30E-03	5.803	3.77	-	1.924	_	3.77	
Beryllium	<u></u>	5.803		3.50E-07	1.924	3.4E-04	0.0003 a	
Cadmium	8.40E-07	5.803	0.0024	1.10E-07	1.924	1.1E-04	0.0025	
Carbon Disulfide Carbon Tetrachloride	1.30E-04 6.00E-06	5.803 5.803	0.38 0.017		1.924 1.924	_	0.38 0.017	
Chlorine	9.20E-04	5.803	2.67	-		_	2.67	
Chloroform	4.70E-05	5.803	0.14	_	1,924	_	0.14	
Chromium	8.27E-05	5.803	0.24	6.70E-07	1,924	0.0006	0.24	
Chromium +6	1.65E-05	5.803	0.048	1.30E-07	1.924	1.3E-04	0.048	
Cobalt	1.50E-07	5.803	4.4E-04	1.20E-05	1.924	0.012	0.012	
Cumene	1.80E-05	5.803	0.052	-	1.924	-	0.052	
oi - n - butyl Phthalate	5.80E-05	5.803	0.17	-		-	0.17	
thyl Benzene	3.90E-06	5.803	0.011	4 655 64	1,924		0.011	
ormaldehyde Hexane	1.30E-03	5.803 5.803	3.77	4.05E-04	1.924	0.39	4.16	
lydrogen Chlonde	5.50E-04 5.60E-04	5.803	1.60 1.62	6.37E-04	1.924 1.924	0.61	1.60	
ead	2.70E-06	5.803	0.008	2.70E-06	1.924	0.0026	2.24 0.010	
langanese	9.50E-05	5.803	0.28	1.40E-07	1.924	1.3E-04	0.010	
Mercury - Bagasse	6.30E-06	5.803	0.018	2.40E-06	1.924	0.0023	0.021	
-Wood Waste	2.90E-07	5.803	0.0008	2.102.00	1.924	0.0025	0.0008	
lethanol	1.50E-03	5.803	4.35	_			4.35	
lethyl Ethyl Ketone	1.20E-05	5.803	0.035	_			0.035	
fethyl Isobutyl Ketone	8.60E-04	5.803	2.50	_	1.924	_ ·	2.50	
lethylene Chloride	1.50E-03	5.803	4.35	_	1.924		4.35	
lapthalene	5.90E-04	5.803	1:71	-	1.924		1.71	
lickel	6.30E-06	5.803	0.018	1.70E-06	1.924	0.0016	0.020	
henois	4.10E-05	5.803	0.12	-	1.924	_	0.12	
hosphorus	1.60E-06	5.803	0.0046	5.81E-05	1.924	0.056	0.061	
OM (Polycyclic Org. Matter)	2.20E-07	5.803	0.0006	8.40E-06	1.924	0.008	0.009 a	
elenium	3.80E-06	5:803	0.011	3.80E-07	1.924	3.7E-04	0.011	
tyrene	1.50E-05	5.803	0.044	-		_	0.044	
, 3, 7, 8 -TCDD (dioxin) oluene	6.00E-12		1.7E-08	-		· -	1.7E-08	
, 1, 1 Trichloroethane	9.00E-05 1.70E-04	5.803 5.803	0.26 0.49	_		-	0.26 · 0.49	
richloroethylene	7.60E-06	5.803	0.022				0.022	
1 & p Xylene	7.80E-06	5.803	0.022				0.022	
Xylene	2.60E-06	5.803	0.023	-		_	0.008	
otal HAPs	2.002 00	0.000	0.000		1.021		32.486	
12 (r) (non-HAPs)								
mmonia	4.80E-02	5.803	139.27	1.48E-02	1.924	14.24	153.51	
romine	4.59E-05	5.803	0.13	6.97E-07	1.924	0.0007	0.13	
lourine	_	5.803		6.30E-06	1.924	0.0061	0.0061	
ulfuric acid	9.80E-04	5.803	2.84	2.50E-03	1.924	2.41	5.25	
Other Air Toxics								
cetone	3.80E-04	5.803	1.10	-			1.10	
arium	5.20E-06	5.803	0.02	6.69E-07	1.924	0.0006	0.02	
enzo(a)anthracene	7.53E-07	5.803	0.0022	4.20E-05	. 1.924	0.040	0.04 a	
enzo(a)pyrene	3.53E-08	5.803	1.02E-04		1.924	-	0.00	
hrysene	3.53E-05	5.803	0.10	-		-	0.10	
opper .	8.02E-05	5.803	0.23	-		-	0.23	
ndium	1.27E-04		0.37	-		-	0.37	
odine sopropanol	2.12E-06 9.20E-03	5.803 5.803	0.0062 26.69	-		-	0.0062	
lolybdenum	9.20E-03 2.24E-07	5.803	6.50E-04			4.7E-04	26.69	
AH	5.90E-10		1.71E-06	4.88E-07	1.924 1.924	4.7E-04	0.0011 1.71E-06	
ilver	1.40E-06	5.803	0.0041	_		_	0.0041	
hallium	UD	5.803	0.0041	_	1.924	_	0,0041	
in	3.65E-08	5.803	1.1E-04	3.30E-06	1.924	0.0032	0.0033 a	
ungsten	1.29E-08		3.7E-05	3.3012-00	1.924	0.0032	3.74E-05	
ranium	1.232-00	- 5.803	5.7 2-05	-		_	J./4E-03	
anadium	1.41E-07		4.1E-04	_		_	4.09E-04	
ittrium	6.59E-08	5.803	1.9E-04	_			1.91E-04	
				6.69E-06				
Zinc	4.24E-04	5.803	1.23	0.03に-Ub	1.924	0.006	1.24	

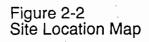
·Table 2-8. Maximum Annual Emissions of Harzardous/Toxic Air Pollutants for Osceola Power (total all boilers)

	Biomass			Alternate Fuel				
	Emission Activity		Annual	Emission	Activity	Annual	Annual	
Pollutant	Factor (lb/MMBtu)	Factor (E12 Btu/yr)	Emissions (TPY)	Factor (lb/MMBtu)	Factor (E12 Btu/yr)	Emissions (TPY)	Emissions (TPY)	
· Ollutarit	(ID/HINIBIO)	(L IZ Bluigh)	(11 1)	(ID/MINISTR)	(E12 Blu/yi)	(111)	(IPI)	
			94.6% Biomass	/ 5.4% Coal	-			
lazardous Air Pollutants	7.005.01		• • •					
Acetaldehyde Acetophenone	7.80E-04	7.661	2.99	-	0.4373	-	2.99	
Acciopnenone Acrolein	3.70E-06 6.50E-05	7.661 7.661	0.014 0.25		0.4373	-	0.014	
Antimony	0.50E-05 UD	7.661	0.25	3.49E-05	0.4373 0.4373	0.008	0.25 0.008 a	
Arsenic	6.79E-05	7.661	0.26	5.40E-05	0.4373	0.008	0.008 a 0.26	
Benzene	1.30E-03	7.661	4.98	3.402-00	0.4373	0.0012	4.98	
Beryllium	1.502-05	7.661	4.30	3.50E-07	0.4373	7.7E-05	7.7E-05	
Cadmium	8.40E-07	7.661	0.0032	4.30E-07	0.4373	9.4E-05	0.0033	
Carbon Disulfide	1.30E-04	7.661	0.50	-	0.4373	-	0.50	
Carbon Tetrachloride	6.00E-06	7.661	0.023	-	0.4373	_	0.023	
Chlorine	9.20E-04	7.661	3.52	_	0.4373	_	3.52	
hloroform	4.70E-05	7.661	0.18	-	0.4373		0.18	
Chromium	8.27E-05	7.661	0.32	1.66E-05	0.4373	0.004	0.32	
chromium +6	1.65E-05	7.661	0.063	3.10E-06	0.4373	0.0007	0.064	
Cobalt	1.50E-07	7.661	5.7E-04	7.20E-0 <i>5</i>	0.4373	0.016	0.016	
Sumene	1.80E-05	7.661	0.069		0.4373	-	0.069	
i - n - butyl Phthalate thyl Benzene	5.80E-05 3.90E-06	7.661 7.661	0.22 0.015	_	0.4373	-	0.22	
inyi benzene omaldehyde	1.30E-06	7.661	0.015 4.98	2.20E-04	0.4373 0.4373	0.05	0.015 5.03	
Hexane	5.50E-04	7.661	4.98 2.11	2.20E-04	0.4373	0.05	5.03 2.11	
ydrogen Chloride	5.60E-04	7.661	2.11	7.90E-02	0.4373	17.27	19.42	
ead	2.70E-06	7.661	0.010	5.10E-06	0.4373	17.27	0.010	
langanese	9.50E-05	7.661	0.36	3.10E-07	0.4373	6.8E-05	0.36	
lercury - Bagasse	6.30E-06	7.661	0.024	8.40E-06	0.4373	0.0018	0.026 a	
-Wood Waste	2.90E-07	7.661	0.0011	-	0.4373	-	0.0011	
lethanol	1.50E-03	7.661	5.75	-	0.4373		5.75	
lethyl Ethyl Ketone	1.20E-05	7,661	0.046		0.4373		0.046	
lethyl isobutyl Ketone	8.60E-04	7.661	3.29		0.4373	_	3.29	
ethylene Chloride	1.50E-03	7.661	5.75	-	0.4373		5.75	
apthalene	5.90E-04	7.661	2.26	_	0.4373	-	2.26	
lickel	6.30E-06	7.661	0.024	1.00E-05	0.4373	0.0022	0.026	
henols	4.10E-05	7,661	0.16	_	0.4373	-	0.16	
hosphorus *	1.60E-06	7.661	0.0061	8.60E-04	0.4373	0.19	0.194 a	
OM (Polycyclic Org. Matter)	2.20E-07	7.661	0.0008		0.4373	-	0.0008	
elenium	3.80E-06	7.661	0.015	5.34E-05	0.4373	0.012	0.026	
tyrene	1.50E-05	7.661	0.057	-	0.4373		0.057	
3, 7, 8 TCDD (dioxin)	6.00E-12	7.661	2.3E-08		0.4373	_	2.3E-08	
oluene	9.00E-05	7.661	0.34	-	0.4373	-	0.34	
, 1, 1 Trichloroethane	1.70E-04	7.661	0.65	-	0.4373		0.65	
richloroethylene	7.60E-06	7.661	0.029	-	0.4373		0.029	
& p Xylene	7.80E-06	7.661	0.030		0.4373		0.030	
Xylene otal HAPs	2.60E-06	7.661	0.010	_	0.4373		0.010 59.008	
							55.555	
12 (r) (non-HAPs) mmonia	4.80E-02	7.661	183.86	4.80E-02	0.4373	10.50	194.4	
romine	4.59E-05	7.661	0.18	7.90E-04	0.4373	0.17	0.35 a	
ourine	7.032-03	7.661	0.10	2.40E-02	0.4373	5.25	5.25 a	
ulfuric acid	9.80E-04	7.661	3.75	0.010	0.4373	2.19	5.25 a 5.94 a	
	5.552-54	7.001	3.73	0.010	0.4313	2.19	J.54 a	
ther Air Toxics cetone	3.80E-04	7.661	1.46		0.4373	_	1.46	
arium	5.20E-06	7.661	0.02	7.44E-05	0.4373	0.016	0.04 a	
enzo(a)anthracene	7.53E-07	7.661	2.88E-03	442-03	0.4373	0.016	2.88E-03	
enzo(a)pyrene	3.53E-08	7.661	1.35E-04	_	0.4373		1.35E-04	
hrysene	3.53E-05	7.661	0.14		0.4373		0.14	
opper	8.02E-05	7.661	0.31	_	0.4373	_	0.31	
dium	1.27E-04	7.661	0.49	_	0.4373		0.49	
dine	2.12E-06	7.661	0.0081		0.4373	_	0.0081	
opropanol	9.20E-03	7.661	35.24	_	0.4373		35.24	
olybdenum	2.24E-07	7.661	8.58E-04	8.83E-06	0.4373	0.0019	0.0028	
AH	5.90E-10	7.661	2.26E-06	552 50	0.4373	0.0019	2.26E-06	
ilver	1,40E-06	7.661	0.0054	_	0.4373		0.0054	
hallium	UD	7.661		_	0.4373		3.0054	
n	3.65E-08	7.661	1.4E-04	8.83E-06	0.4373	0.0019	0.0021	
ungsten	1,29E-08	7.661	4.9E-05	0.032-00	0.4373	0.0015	4.94E-05	
ranium	1,252-06	7.661	4.50-05	_	0.4373	_	4.546-05	
anadium	1.41E-07	7.661	5.4E-04	_	0.4373	-	5.40E-04	
ttrium	6.59E-08	7.661	2.5E-04	-	0.4373	-	2.52E-04	
inc	4.24E-04	7.661	1.62	3.49E-04	0.4373	0.08	1.70	
inc								

Table 2-8. Maximum Annual Emissions of Harzardous/Toxic Air Pollutants for Osceola Power (total all boilers)

	Biomass			Alternate Fuel				
	Emission Activity		Annual	Emission	Activity	Annual	Annual	
5	Factor	Factor	Emissions	Factor	Factor	Emissions	Emission	
Pollutant	(lb/MM8tu)	(E12 Btu/yr)	(TPY)	(lb/MMBtu)	(E12 Btu/yr)	(TPY)	(TPY)	
			00.50/ 5:					
azardous Air Pollutants			83.5% Biomass	: / 16.5% Tire-De	rived Fuel			
cetaldehyde	7.80E-04	6.854	2.67	_	1.354	_	2.67	
cetophenone	3.70E-06	6.854	0.013		1.354	_	0.013	
crolein	6.50E-05	6.854	0.22		1.354	_	0.22	
ntimony	UD	6.854		6.45E-09	1.354	4.4E-06	4.4E-06	
rsenic	6.79E-05	6.854	0.23	4.52E-06	1.354	0.003	0.24	
enzene	1.30E-03	6.854	4.46	_	1.354		4.455	
eryllium	-	6.854		_	1.354	_	-	
admium	8.40E-07	6.854	0.0029	3.87E-06	1.354	0.0026	0.0055	
arbon Disulfide	1.30E-04	6.854	0.45		1.354	_	0.45	
arbon Tetrachloride	6.00E-06	6.854	0.021	-	1.354	_	0.021	
hlorine	9.20E-04	6.854	3.15	_	1.354		3.15	
hloroform	4.70E-05	6.854	0.16	_	1.354	-	0.16	
hromium	8.27E-05	6.854	0.28	6.45E-06	1.354	0.0044	0.29	
hromium +6	1.65E-05	6.854	0.057	0.102.00	1.354	0.0011	0.057	
obalt	1.50E-07	6.854	5.1E-04	3.23E-04	1.354	0.22	0.22	
umene	1.80E-05	6.854	0.062	J.202-34	1.354		0.062	
i - n - butyl Phthalate	5.80E-05	6.854	0.20	_	1.354		0.20	
thyl Benzene	3.90E-06	6.854	0.013		1.354	_	0.013	
ormaldehyde	1.30E-03	6.854	4.46	4.05E-04	1.354	0.27	4.73	
Hexane	5.50E-04	6.854	1.88	4.03L-04	1.354	0.21	1.88	
ydrogen Chloride	5.60E-04	6.854	1.92	9.61E-02	1.354	65.1	67.0	
ead .	2.70E-06	6.854	0.009	4.20E-05	1.354	2.8E-02	0.038	
langanese	9.50E-05	6.854	0.33	6.45E-04	1.354	0.44	0.038	
lercury - Bagasse	6.30E-06	6.854	0.022	5.00E-06	1.354	3.4E-03	0.025	
-Wood Waste	2.90E-07		0.0010					
		6.854		_	1.004	-	0.0010	
ethanol	1.50E-03	6.854	5.14	-			5.14	
ethyl Ethyl Ketone	1.20E-05	6.854	0.041	-			0.041	
lethyl Isobutyl Ketone	8.60E-04	6.854	2.95	-			2.95	
lethylene Chloride	1.50E-03	6.854	5.14	-		-	5.14	
apthalene	5.90E-04	6.854	2.02	-	1,354	-	2.02	
lickel	6.30E-06	6.854	0.022	3.87E-05	1.354	0.026	0.048	
henols	4.10E-05	6.854	0.14	-	1.354	· -	0.14	
hosphorus	1.60E-06	6.854	0.0055	_	1,354	•	0.0055	
OM (Polycyclic Org. Matter)	2.20E-07	6.854	0.0008	_	1,354		0.0008	
elenium	3.80E-06	6.854	0.013	6.77E-05	1,354	0.05	0.06	
tyrene	1.50E-05	6.854	0.051	-	1.354		0.051	
, 3, 7, 8 TCDD (dioxin)	6.00E-12	6.854	2.1E-08	_		_	2.1E-08	
oluene	9.00E-05	6.854	0.31	_		_	0.31	
. 1, 1 Trichloroethane	1.70E-04	6.854	0.58	_		-	0.58	
richloroethylene	7.60E-06	6.854	0.026	_			0.026	
1 & p Xylene	7.80E-06	6.854	0.027			· -	0.027	
Xylene	2.60E-06	6.854	0.009	_		_		
otal HAPs	2.000-00	0.034	0.009	_	1.354		0.009 103.190	
12 (r) (non-HAPs)								
mmonia	1.48E-02	6.854	50.72	4.80E-02	1,354	32.50	83.2	
romine	4.59E-05	6.854	0.16		1,354	_	0.16	
lourine	-	6.854		6.50E-03	1.354	4.4005	4.40	
ulfuric acid	9.80E-04	6.854	3.36	3.40E-03	1,354	2.3018	5.66	
ther Air Toxics								
cetone	3.80E-04	6.854	1.30	_	1.354		1.30	
anum	5.20E-06	6.854	0.02	7.74E-06	1.354	0.0052	0.02	
enzo(a)anthracene	7.53E-07		2.58E-03	42-00	1.354	0.0032	2.58E-03	
enzo(a)pyrene	3.53E-08		1.21E-04			_	1.21E-04	
					.,			
hrysene	3.53E-05		0.12	6,15E-04	- 1.354 1.354	0.42	0.12	
opper	8.02E-05	6.854	0.27	0,13⊑-04	1.354	0.42	0.69	
dium	1.27E-04	6.854	0.44	-	- 1.354		0.44	
dine	2.12E-06	6.854	0.0073	-			0.0073	
opropanol	9.20E-03	6.854	31.53	-	1.354	-	31.53	
olybdenum	2.24E-07	6.854	7.68E-04	4.52E-05		0.031	0.031	
AĤ	5.90E-10	6.854	2.02E-06	_	1,354		2.02E-06	
ilver	1.40E-06	6.854	0.0048	_	1.354		0.0048	
hallium	UD	6.854		_	1,354		_	
in .	3.65E-08		1.3E-04	6.45E-09		4.37E-06	1.3E-04	
ungsten	1.29E-08		4.4E-05		1.354	_	4.4E-05	
ranium	550	- 6.854		2.58E-08		1.75E-05	1.7E-05	
anadium	1.41E-07		4.8E-04	6.45E-07	1.354		9.2E-04	
anadum ttrium	6.59E-08		2.3E-04	0.436-07	1.354 - 1.354		9.2E-04 2.3E-04	
	4.24E-04							
inc		6.854	1.45	9.81E-03	1.354	6.64	8.09	

a Denotes maximum annual emissions for any fuel scenario.



Source: USGS, 1970.



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



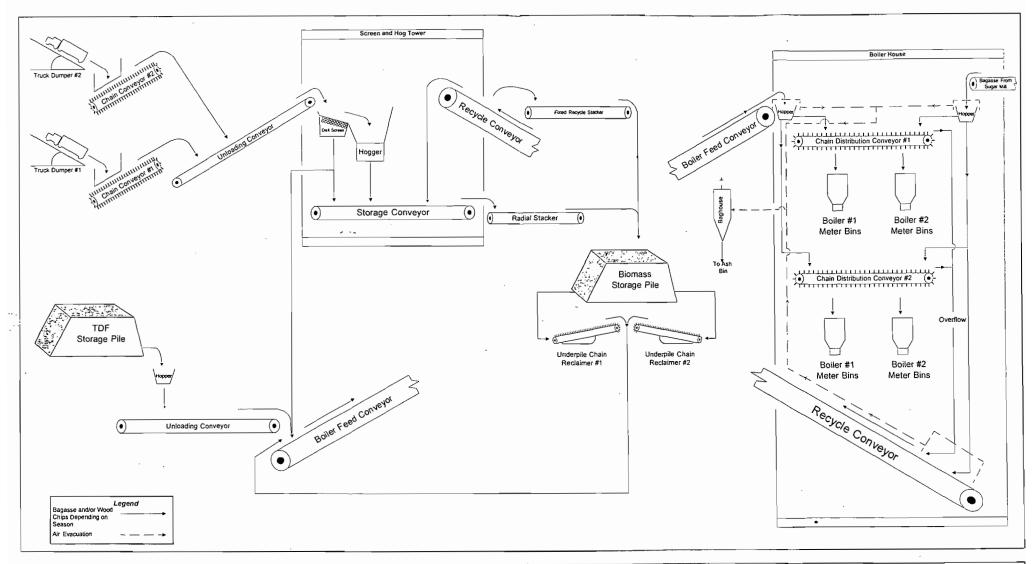


Figure 2-4 Osceola Power Fuel Handling System		Emission Unit Fuel Handling System	KRN	
Osceola Power L.P. Pahokee, Florida	Filename: 9651011Y/F1/FUELFLOW.VSD	Engineering and Applied Sciences, Inc.		
	ranokee, rionda	Latest Revision Date: 3/25/96	Lighteening the Appare	
			2.23	

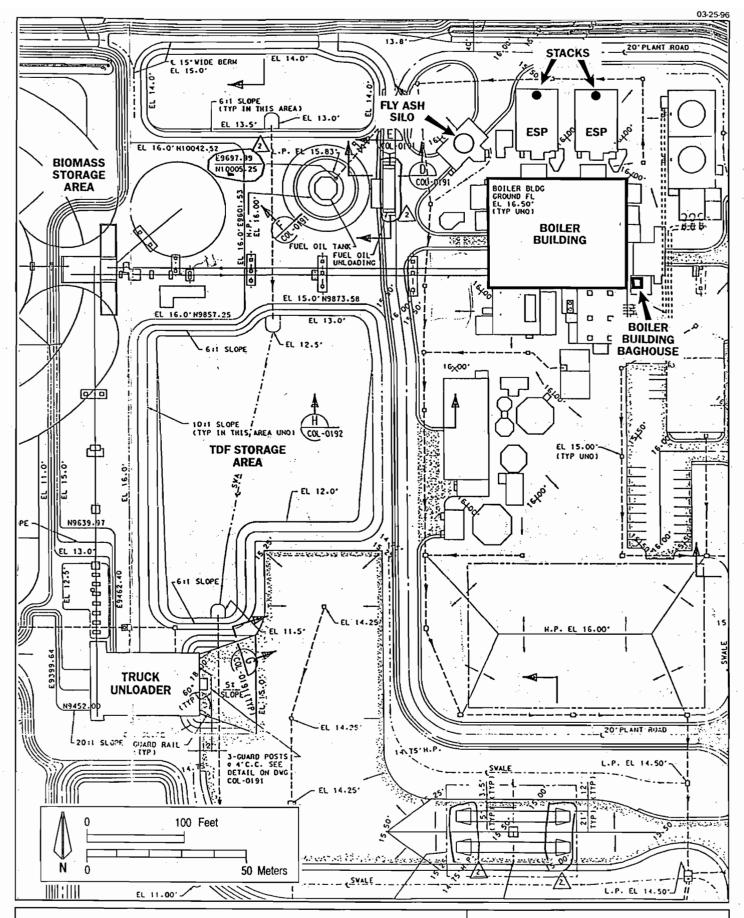


Figure 2-5 Plot Plan of Osceola Power Facility



3.0 AIR QUALITY REVIEW REQUIREMENTS AND SOURCE APPLICABILITY

Osceola Power received a state and federal PSD construction permit in 1993, and a revised PSD permit in 1995. The facility is now in the startup period, and has not yet started commercial operations. Osceola Power is now proposing to utilize TDF as a supplemental fuel, and desires to amend the PSD construction permit.

For the PSD pollutants, no increase over the current permitted annual emissions is being requested except in the case of lead. Proposed lead emissions are 0.038 TPY. The PSD significant emission rate for lead is 0.60 TPY. Therefore, PSD review will not be triggered as a result of the proposed modification.

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

4.0 AIR TOXIC IMPACT ANALYSIS

An air toxic air modeling analysis was performed for the Osceola Cogeneration facility in April 1995. Due to changes in some emissions for some of the HAPs and the promulgation of Version 4.0 of the Air Toxic guidelines, the air toxic modeling analysis is being updated in this section.

4.1 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 the Florida Department of Environmental Protection (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 Osceola Cogeneration facility.

The Industrial Source Complex Short-Term 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 to 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 the 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 Osceola cogeneration facility's two 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 the 8-hour, 24-hour and annual averaging times. The highest predicted 8- and 24-hour and highest annual concentration 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 Osceola Cogeneration facility for each HAP and air toxic pollutant emitted. The calculations for these emitted compounds are provided in Section 2.0. The short-term emission rates for each pollutant were used for determining compliance with the 8- and 24-hour FARCs, while the annual averaged emissions were used for determining compliance with the annual FARC. Maximum pollutant-specific impacts for each averaging time were determined by multiplying the maximum predicted generic concentrations 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 (NEWS) 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. Additional screening analysis receptors were located at off-site distances of 2.0 and 4.0 km. Modeling refinements were performed by using a 2 degree angular spacing. 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 PSD Application 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. The dimensions of this structure are 120 ft high, 138 ft long and 75 ft wide.

4.2 MODELING RESULTS

The maximum predicted concentrations for the 8-hour, 24-hour, and annual averaging periods for each HAP and air toxic pollutant is presented in Table 4-3. Table 4-3 indicates the maximum short and annual emission rates, and the maximum impacts for each compound emitted. As shown, all compounds emitted except arsenic have maximum impacts that are below the FARC for the 8-, 24-hour, and annual averaging times, respectively. The maximum predicted annual averaged arsenic concentration marginally exceed the annual FARC, while the maximum predicted 8- and 24-hour arsenic concentrations comply with the respective FARCS. In any event, the predicted arsenic impacts are identical to those predicted in the April 1995, permit application. Therefore, there is no change from the current construction permit.

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	3033.	190	1040.
20	3179.	200	1090.
30	3449.	210	1183.
40	3899.	220	1337.
50	4647.	230	1592.
60	2252.	240	1408.
70	2076.	250	1297.
80	1981.	260	1238.
90	1951.	270	1219.
100	2352.	280	1238.
110	2465.	290	1297.
120	3536.	300	1408.
130	1631.	310	1592.
140	1944.	320	1897.
150	2041.	330	2438.
160	1881.	340	3179.
170	1040.	350	3033.
180	1024.	360	2987.

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

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

	Emission Total Both				Concentrations	s (µg/m³)			Compound
	Maximum	Annual	8-Hou		24-Ho	ur	Ann	ual	Complies Wi
Pollutant	(lb/hr)	(TPY)	Impact	FARC	Impact	FARC	Impact	FARC	FARCs?
1, 1, 1 trichloroethane	0.26	0.70	0.0271	19000	0.0149	4524	6.4E-04	NA	YES
2,3,7,8 -TCDD (dioxin) acetaldehyde	9.12E-09 1,19	2.5E-08 3.20	9.8E-10 0.1242	NA 450	5.3E-10 0.0684	NA 107	2.3E-11 0.0029	2.2E-08	YES
acetone	0,578	1.56	0.0605	17800	0.0333	4238	1.4E-03	0.5 NA	YES YES
acetophenone	0.0056	0.015	0.0006	490	0.0003	117	1.4E-05	100	YES
acroleln	0.099	0.27	0.0104	2.3	0.0057	0.5	2.4E-04	0.02	YES
ammonia	72. 96	196.99	7.6458	170	4.2085	41	0.180	100	YES
antimony	0.037	0.0076	0.0039	5	0.0021	1.2	7.0E-06	0.3	YES
arsenic	0.20	0.26	0.0207	0.1	0.0114	0.02	0.00025	0.00023	NO
oarium Denzene	0.079 1.98	0.04 5.34	0.0083	5 30	0.0046	1.2	3.7E-05	50	YES
benzo (a) anthracene (POM)	0.0011	0.04	0.2071 0.0001	NA	0.1140 0.0001	7 NA	0.0049 0.0000	0.12 0.0011	YES YES
penzo (a) pyrene	5.37E-05	1.45E-04	0.0000	NA	0.0000	NA NA	0.0000	0.0003	YES
peryllium	0.0063	0.00034	6.6E-04	0.02	3.6E-04	0.005	3.1E-07	0.00042	YES
promine	0.84	0.35	0.0878	6.6	0.0483	1.6	3.2E-04	NA	YES
admium	0.0035	0.0055	3.7E-04	0.02	2.0E-04	0.005	5.0E-06	0.00056	YES
carbon disuffide	0.198	0.53	0.0207	310	0.0114	74	4.9E-04	200	YES
carbon tetrachloride chlorine	0.0091 1.40	0.025 3.76	0.0010 0.1465	310 15	0.0005 0.0807	74 3.6	2.3E-05 0.0035	0.067 0.4	YES YES
chloroform	0.071	0.19	0.1465	490	0.0007	117	1.8E-04	0.043	YES
chromium	0.24	0.15	0.0252	5	0.0139	1.2	3.1E-04	1000	YES
chromium +6	0.048	0.068	0.0050	0.5	0.0028	0.1	6.2E-05	0.000083	YES
chrysene	0.054	0.14	0.0056	2	0.0031	0.5	1.3E-04	NA	YES
cobalt	0.239	0.22	0.0250	0.5	0.0138	0.1	2.0E-04	NA	YES
copper	0.57	0.69	0.0597	10	0.0329	2.4	6.3E-04	NA	YES
zimene	0.027 0.088	0.07	0.0029	2460	0.0016	586	6.8E-05	1	YES
fibutyl phthalate ethylbenzene	0.0059	0.24 0.016	0.0092 0.0006	50 4340	0.0051 0.0003	12 1033	2.2E-04 1.5E-05	100 1000	YES YES
luorine (as fluorides)	25.44	5.25	2.6660	25	1.4675	6	4.8E-03	NA	YES
omaldehyde	1.96	5.34	0.2071	3.7	0.1140	0.9	0.0049	0.077	YES
nexane	0.84	2.26	0.0676	1760	0.0482	419	0.0021	200	YES
nydrogen chloride	83.74	66.98	8.7755	70	4.8304	17	0.0613	7	YES
ndium	0.193	0.52	0.0202	1	0.0111	0.2	4.8E-04	NA	YES
odine sopropanol	0.0032 13.98	0.0087 37.76	0.0003 1.4654	10 9800	0.0002 0.8066	2.4 2333	8.0E-06 3.5E-02	NA NA	YES YES
ead	0.0331	0.038	0.0035	0.5	0.0019	0.1	3.4E-05	0.09	YES
nanganese	0.55	0.76	0.0576	50	0.0317	12	7.0E-04	0.05	YES
nercury	0.0089	0.026	0.0009	0.5	0.0005	0.1	2.4E-05	0.3	YES
nethanol	2.28	6.16	0.2389	2600	0.1315	619	5.6E-03	NA	YES
nethyl ethyl ketone	0.018	0.049	0.0019	5900	0.0011	1405	4.5E-05	1000	YES
methyl isobutyl ketone	1.31	3.53	0.1370	2050	0.0754	488	3.2E-03	NA	YES
methylene chloride	2.28	6.16	0.2389	1740	0.1315	414	5.6E-03	2	YES
nolybdenum na nadona	0.034 0.0119	0.031 0.032	0.0036	50 4340	0.0020	12	2.9E-05	NA NA	YES
n&p xylene napthalene	0.90	2.42	0.0012 0.0940	500	0.0007 0.0517	1033 119	2.9E-05 2.2E-03	80	YES
nickel	0.0336	0.048	0.0035	10	0.0017	2.4	4.4E-05	NA 0.0042	YES YES
xylene	0.0040	0.040	0.0004	4340	0.0002	1033	9.8E-06	80	YES
PAH	8.97E-07	2.42E-06	0.0000	2	0.0000	0.5	2.2E-09	0	YES
phenois	0.062	0.17	0.0065	190	0.0036	45	1.5E-04	30	YES
phosphorus	0.91	0.194	0.0955	1	0.0526	0.2	1.8E-04	NA	YES
oom (polycyclic organic matter)	0.010	0.0087	0.0011	NA	0.0006	NA	8.0E-06	NA	YES
selenium	0.057	0.059	0.0059	2	0.0033	0.5	5.4E-05	NA	YES
silver	0.0021	0.0057	2.2E-04	0.1	1,2E-04	0.02	5.3E-06	NA	YES
tyrene	0.023 11.22	0.062	0.0024 1.2E+00	2130 10	0.0013	507	5.6E-05	1000	YES
sulfuric acid mist in	0.0094	5.94 0.0033	9.8E-04	10	6.5E-01 5.4E-04	2.4 0.2	5.4E-03 3.0E-06	NA NA	YES YES
oluene	0.137	0.37	0.0143	1880	0.0079	448	3.4E-04	400	YES
richloroethylene	0.0116	0.031	0.0012	2690	0.0007	640	2.9E-05	0.77	YES
ungsten	1.96E-05	5.3E-05	2.05E-06	50	1.13E-06	12	4.8E-08	NA	YES
ranium	1.9E-05	1.7E-05	2.0E-06	0.5	1.1E-06	0.1	1.6E-08	NA.	YES
ranadium	5.9E-04	9.2E-04	6.2E-05	0.5	3.4E-05	0.1	8.4E-07	20	YES
rttrium	1.0E-04	2.7E-04	1.0E-05	10	5.8E-06	2.4	2.5E-07	NA	YES
tine .	7.59	8.09	0.7954	10	0.4378	2.4	7.4E-03	NA	YES
irconium	6.3E-04	0.0017	6.6E-05	50	3.6E-05	12	1.5E-06	NA	YES
lotes: FARC= Florida Ambient Re Aeximum concentrations determin	ned with ISCST	3 model and V	West Palm Beach			2 to 1986.			
lighest predicted concentrations		eneric emission		9.365 lb/hr)	ara :				
	8-hour=		8.317						
	24-hour=		4.578						
	Annual≠		0.318						

APPENDIX A EMISSION FACTORS

Table A-1. Emission Factors for Criteria/Designated Pollutants, Osceola Power L. P. Cogeneration Facility

		Biomass		No. 2 Fuel		Coal		Tire-Derived Fuel
Regulated	Emission Factor		Emission Factor		Emission Factor	•	Emission Factor	
Pollutant	(lb/MMBtu	Reference	(lb/MMBtu	Reference	(lb/MMBtu	Reference	_(lb/MMBtu	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	0.10 0.02	Current permit limit Current permit limit	0.05	Current permit limit	1.2	NSPS, Current permit limit	1.2 0.4	NSPS, Current permit limit Burning TDF with biomass
Nitrogen oxides	0.116	SNCR system	0.12	Current permit limit	0.15	Current permit limit	0.116	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
/OC- Bagasse Wood waste	0.060 0.040	Vendor information Vendor information	0.03	Current permit limit	0.03	Current permit limit	0.04	Current permit limit for wood wa
_ead .	2.7E-06	Current permit limit	8.9E-07	Current permit limit	5.1E-06	AP-42, Table 1.1-13, 99% eff	. 4.2E-05	TDF analysis; 99% removal
Mercury- Bagasse Wood waste	5.7E-06 2.9E-07	Mercury control system Mercury control system	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	0.0049 0.00098	AP-42; 4% of SO2 is SO3 AP-42; 4% of SO2 is SO3	0.0025	AP-42; 4% of SO2 is SO3	0.010	AP-42; 0.7% of SO2 is SO3	0.010 0.0034	Based on factor for coal AP-42; 0.7% of SO2 is SO3
Total reduced sulfur			·		ـنــ		-	-
Asbestos								·
/inyl Chloride								_

References:

^{1.} Emission Assessment of Conventional Stationary Combustion Systems: Volume III. EPA-600/7-81-003a (1981); bolers equipped with ESP: 4.1 ng/J.

Table A-2. Emission Factors for Hazardous Air Pollutants

			Biomass			No. 2 Fuel (Dil		Coal	
	Ref	Publish Emiss Fact	ion	Converted Emission Factor (lb/MMBtu)	Ref.	Published Emission Factor	Converted Emission Factor (Ib/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/1012 Btue	2.4E-07	5	0.15 ng/J	3.5E-05
Arsenic - Maximum	10	1.33E-04	łb/MMBtu	1.33E-04	8	4.2 lb/1012 Btua	4.2E-08	9	542 lb/1012 Btua	5.4E-06
- Annual	10	6.79E-05	lb/MMBtu	6.79E-05						
Benzene	1	1.3E-03	lb/MMBtu	1.3E-03						
Cadmium	1	0.84	1b/1012 Btu	8.4E-07	8	11 lb/1012 Btue	1.1E-07	9	43 lb/1012 Btu.	4.3E-07
Carbon Disulfide	1	1.3E-04	tb/MMBtu	1.3E-04						
Carbon Tetrachloride	1		lb/MMBtu	6.0E-06					v .	
Chlorine	2	0.0078		9.2E-04						
Chloroform	1	4.7F-05	lb/MMBtu	4.7E-05						
Chromium - Maximum	10		lb/MMBtu	1.58E-04	8	67 lb/1012 Btua	6.7E-07	9	1570 lb/1012 Btua	1.6E-05
- Annual	10		ib/MMBtu	8.27E-05	•	0. 10. 10.1 5 (0.1	S E S.	•	10.0 10.1015 0.00	7.52 0
Chromium (VI) - Maximum	10		lb/MMBtu	3.17E-05	7	20% of Cr	1.3E-07	. 7	20% of Cr	3.1E-06
- Annual	10		tb/MMBtu	1.65E-05		2070 01 01	1.02 07	•	20,00.0.	0.12 01
Cobalt	2	1.3E-04		1.3E-04	5	50.5 pg/J	1.2E-05	5	0.31 ng/J	7.2E-0
Cumene	1		ib/MMBtu	1.8E-05	J	oo.o pg/o	1.22-00	J	0.01 11970	7.22-0
Di - n - Butyl Phthalate	i		Ib/MMBtu	5.8E-05						
Ethyl Benzene	1		ib/MMBtu	3.9E-06						
Formaldehyde	i		Ib/MMBtu	1.3E-03	8	405 lb/1012 Btu	4.1E-04	9	221 lb/1012 Btu	2.2E-04
n Hexane	1		lb/MMBtu	5.5E-04	·	400 10/10/12 Dta	4.12-04	·	221 10/10/2 514	2.22
Hydrogen Chloride	i	5.6E-04		5.6E-04	. 6	274 pg/J	6.4E-04	-6	33.9 ng/J	7.9E-02
Manganese	1		1b/10 ₁₂ Btu	9.5E-05	. 8	14 lb/1012 Btus	1.4E-07	4	31 lb/1012 Btua	3.1E-07
Methanol	ì		Ib/MMBtu	1.5E-03	·	14 10/10/2 014		•	01 10/10/2 5102	0.12 0.
Methyl Ethyl Ketone	1		lb/MMBtu	1.2E-05						
Methyl Isobutyl Ketone	i		ib/MMBtu	8.6E-04					,	
Methylene Chloride	1		lb/MMBtu	1.5E-03						
Napthalene	i		lb/MMBtu	5.9E-04						
Nickel	1		lb/1012 Btu	6.3E-06	8	170 lb/1012 Btua	1.7E-06	4	1020 lb/1012 Btus	1.0E-0
Phenois	i		lb/MMBtu	4.1E-05	•		2 00	•	1020 10/10/12/01	1.02 0
Phosphorous	i		1b/1012 Btu	1.6E-06	5	25 pg/J	5.8E-05	5	3.7 ng/J	8.6E-0
Polycyclic Organic Matter	2		lb/1012 Btu	2.2E-07	8.	8 lb/10 ₁₂ Btu	8.4E-06	•	5.7 Hg/5	0.02-0
					2			5	0.02/1	E 2E 0
Selenium	1		1b/1012 Btu	3.8E-06	2	38 lb/1012 Btua	3.8E-07	Þ	0.23 ng/J	5.3E-0
Styrene	1		lb/MMBtu	1.5E-05						
2,3,7,8 Tetrachlorodibenzo -p-dioxin	2	5.1E-11		6.0E-12						
Toluene	1		lb/MMBtu	9.0E-05						
1,1,1 Trichloretharie	1		Ib/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	1b/MMBtu	2.6E-06						

[•] Uncontrolled emission factor, 99% control with ESP is assumed to calculate controlled emission factor.

Conversions:

Ib/1012 Btu x 1012 Btu/1,000,000 MMBtu = Ib/MMBtu

Ib/ton x ton/2000 Ib x Ib/4250 BTU x 106 Btu/MMBtu = Ib/MMBtu

ng/J x 2.324x10-3 = lb/MMBtu (uncontrolled)

ng/J x 2.324x104 = lb/MMBtu (90% controll)

pg/J x 2.324x10₆ = lb/MMBtu (uncontrolled)

ng/J x 2.324x104 = 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 2.4% treated wood burning.

Source: KBN, 1996.

Table A-3. Emission Factors for Additional Florida Air Toxics

		Biomass			No.2 Fuel O	il			Coal	
Pollutant	Ref.	Published Emission Factor	Converted Emission Factor (lb/MMBtu)	Reference	Publishe Emission Fa		Converted Emission Factor (lb/MMBtu)	Ref.	Published Emission Factor	Converted Emission Factor (lb/MMBtu)
Acetone	1	3.8E-04 lb/MMBtu								
Ammonia	2	0.015 lb/MMBtu		2	0.015		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	1.25E-04 lb/MMBtu		7	4.20E-05	lb/MMBtu	4.20E-05	8	1.71E-04 lb/MMBtu	1.71E-04
Copper - Annual	4	8.02E-05 lb/MMBtu								
Indium	5	1.27E-04 lb/MMBtu								
lodine	2	1.8E-05 lb/ton	2.12E-06							
Isopropanol	1	9.2E-03 lb/MMBtu								
Molybdenum	2	1.9E-04 lb/ton₂	2.24E-07	6	21	pg/J	4.88E-07	6	0.38 ng/J	8.83E-06
PAĤ	1	5.9E-04 lb/MMBtu	5.90E-10			. •			· ·	
Silver	1	140 lb/1012 Btua								
Thallium	1	ND								
Tin	2	3.1E-05 lb/tona	3.65E-08	6	142	pg/J	3.3E-06	6	0.38 ng/J	8.83E-06
Tungsten	2	1.1E-05 b/tona	1.29E-08	-	–	F 3		_		
Vanadium	2	1.2E-04 lb/tona	1.41E-07							
Yttrium	2	5.6E-05 lb/tona	6.59E-08							
Zirconium	2	3.5E-04 lb/tona	4.12E-07							
Zinc	ā	14,130 ppm	4.24E-04	6	20.0	pg/J	6.69E-07	6	1.5 ng/J	3.49E-05

Uncontrolled emission factor: 99% control with ESP is assumed to calculate controlled emission factor.

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 2.4 % 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/10₁₂ Btu x 10₁₂ Btu/1,000,000 MMBtu = lb/MMBtu

lb/ton x ton/2000 lb x lb/4,250 BTU x 106 Btu/MMBtu = lb/MMBtu

 $pg/J \times 2.324 \times 10-6 (lb/MMBtu)/(pg/J) \times (1 - 0.99) = 2.324-8 lb/MMBtu$

 $ng/J \times 2.324 \times 10^{-3} (lb/MMBtu)/(ng/J) \times (1 - 0.99) = 2.324 - 5 lb/MMBtu$

ND = Non-detectable

APPENDIX B

BASIS FOR SO₂ REMOVAL WHEN FIRING BIOMASS AND TDF IN COMBINATION

APPENDIX B

OSCEOLA 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 = 390 MMBtu/hr \div 5,500 Btu/lb = 35.45 TPH

Sulfur in fuel:

Biomass = $390 \text{ MMBtu/hr} \times 0.10 \text{ lb/MMBtu} = 39.0 \text{ lb/hr}$

 $TDF = 370 \text{ MMBtu/hr} \div 15,500 \text{ Btu/lb} = 23,871 \text{ lb/hr}$

 $= 23,871 \text{ lb/hr} \times 1.23\% \text{ S} = 293.6 \text{ lb/hr}$

Total = 39.0 + 293.6 = 332.6 lb/hr

Tons wood/lb S in fuel = $35.45 \div 332.6 = 0.11$

Sulfur Capture = $122.34 \times (0.11)^{0.5} = 41\%$

2. ANNUAL AVERAGE CONDITIONS

6.6% TDF, 93.4% biomass, weight basis

Assume all biomass utilized is wood waste.

From Table 2-2:

Wood waste = 623,055 TPY; 6.854×10^{12} Btu/yr

TDF = 43,687 TPY

Sulfur in fuel:

Wood waste = $6.854 \times 10^{12} \text{ Btu/yr} \times 0.02 \text{ lb/MMBtu} = 137,080 \text{ lb/yr}$

TDF = 43,687 TPY x 2,000 lb/ton x 1.23% = 1,074,700 lb/yr

Total = 137,080 + 1,074,700 = 1,211,780 lb/yr

Tons wood/lb S in fuel = $623,055 \div 1,211,780 = 0.51$

Sulfur Capture = $122.34 \times (0.51)^{0.5} = 87\%$

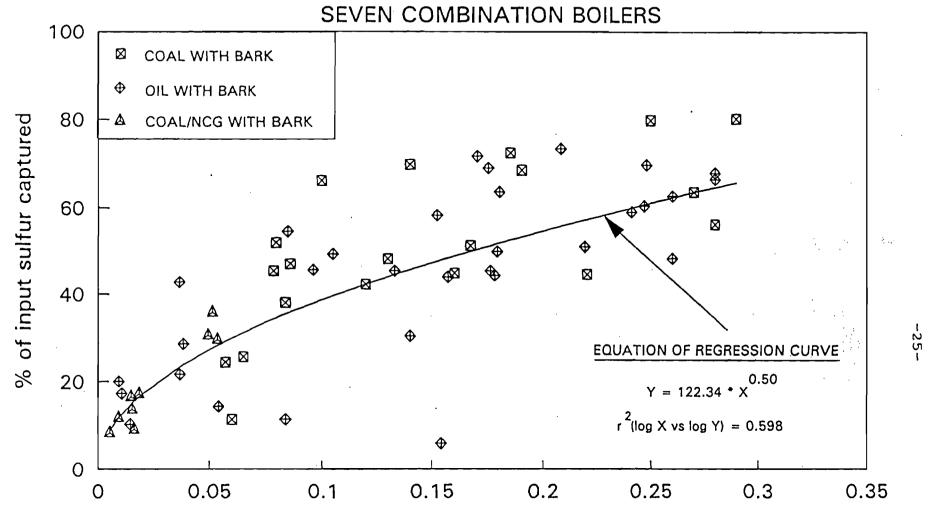


technical bulletin

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



ton wood residue per lb of sulfur in combined fuel feed

FIGURE 11 SUMMARY OF GAS-SOLID SULFUR CAPTURE IN COMBINATION BOILERS

LANDERS & PARSONS
ATTORNEYS AT LAW

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OF COUNSEL

VICTORIA J. TSCHINKEL
SENIOR CONSULTANT
INOT A MEMBER OF THE FLORIDA BARI

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BUREAU OF AIR REGULATION

May 9, 1996

Hamilton S. Oven, Jr.
Power Plant Siting Coordinator
Department of Environmental
Protection
3900 Commonwealth Boulevard
Tallahassee, Florida 32399

RE: Okeelanta and Osceola Cogeneration Facilities

Dear Mr. Oven:

This law firm assists Okeelanta Power Limited Partnership (Okeelanta) and Osceola Power Limited Partnership (Osceola) with environmental law issues affecting their cogeneration facilities in Palm Beach County, Florida. On behalf of Okeelanta and Osceola, we are sending you this letter to confirm our understanding about the issues we discussed with you during our telephone conversation on May 1, 1996.

The PSD permit for the Okeelanta cogeneration facility provides that the facility's "gross generating capacity shall not exceed 74.9 megawatts (MW), 1-hour average, except during scheduled emissions compliance and equipment performance tests." ACO 50-219413, PSD-FL-196 at page 5, Specific Condition No. 1; see also page 7, Specific Condition No. 11. The PSD permit for the Osceola cogeneration facility provides that the facility's maximum generating capacity "shall not exceed 74 megawatt (MW), 1 hour average." ACO50-269980, PSD-FL-197A at page 5, Specific Condition No. 1.

Based on our recent telephone discussion with you, it is our understanding that the "1-hour average" described in these PSD permits is a 1 hour rolling average. The one hour averaging period starts when the facility's generation rate exceeds the applicable MW threshold (e.g., 74.9 MW at Okeelanta). In a hypothetical situation, if the gross generating rate of the Okeelanta cogeneration facility momentarily exceeds 74.9 MW due

Hamilton S. Oven, Jr. Page Two
May 9, 1996

to an upset condition, the facility will have a total of one hour (measured from the start of the upset condition) to reduce the facility's generating rate and attain an average hourly generating rate that is equal to or less than 74.9 MW.

Conversely, the Department will not apply the one hour average to one hour blocks of time (e.g., 1 P.M. until 2 F.M.). This approach will not be used because, if an upset condition occurred 59 minutes after the start of the one hour block, the cogeneration facility would not have an adequate opportunity to reduce its generating rate and come into compliance with the 74.9 MW limit.

Okeelanta and Osceola have raised this issue with the Department because they want to ensure that there is no confusion in the future concerning the proper interpretation of the Department's permit limits. For this reason, Okeelanta and Osceola would greatly appreciate it if the Department would confirm in writing that our understanding about these issues is correct.

Thank you for your cooperation and assistance with this matter. Please call me if you have any questions.

Sincerely

David S. Dee

cc: Chip Collette
Clair Fancy
Al Linero
Willard Hanks
James Stormer

CC; T. Tittle, SFD D. Knowlas, SD



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THE PALM BEACH POST

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

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in the Cou	et was published in said newspaper in
the issues of December 2	24, 1996
Karen McLinton Notary Public, State of Florida Commission No. CC 591337	the said newspaper has heretofore been a Florida, daily and Sunday and has been at the in West Palm Beach, in said Palm Beach ding the first publication of the attached at she/he has neither paid nor promised the, commission or refund for the purpose the said newspaper. A.D. 1996 The many of December A.D. 1996 The many of December A.D. 1996 The many of December A.D. 1996

No. 272384 NO. 272384
LEGAL NOTICE
PUBLIC NOTICE OF
INTENT TO ISSUE
CONSTRUCTION PERMIT
AMENDMENT AMENDMENT STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

PROTECTION

DRAFT Permit Amendment
No: 0990331-003-AC, (PSD-FL197C)

Osceole

Cogeneretion Plent
Pelm Beech County
The Department of Environmental Protection (Depertment) givens notice of its intent to issue en eir
construction permit amendment to Osceole Power Limited Partnership to conduct a
alxty (80) day performance
teat while burning a blend of
Tire Derived Fuel (TDF) with
bagesse and/or wood westea
at the Cogeneration Plent located near Pahokee, Palm
Beach County. A Best Available Control Technology
(BACT) determination was not
required for eny pollutents
pursuant to Rule 62-212.400,
F.A.C., end 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The amendment
will not cause a violation of
any state or federal ambient
oir quelity standards or increments. The applicant's name
and address are: Osceola
Power LP, Post Office Box
606, Pahokee, Florida 33476.
The plant is already permitted
to burn bagasse and wood
wastes as well as coal. Burnling TDF as planned is not expacted 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 cerbon injection for mercury. The test may provide the
Department with reasonable
assurance that the plant can
burn TDF without contravanling Department standards,
rules or permit conditions. The
Department will consider the
results of the test burn in evaluating whether to Issue s future permit modification. The
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results of the test burn in evaluating whether to Issue s future permit modification. The
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results of the test burn in evaluating whether to Issue s future permit modification. The
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results of the test burn in evaluating whether to Issue s future permit modification.
The Department will sesue the
FINAL Permit Amendment, in
accordance with the conditions of the

suits 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 Stane. Road, Mail Station #5505. Tallahassee, Florida 32399-2400. Any written comments fried shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit Amendment, the Department shell issue a Revised DRAFT Permit Amendment and require, if applicable, another Public Notice.

The Department will Issue Fi-

plicable, another Public Notice.

The Dapartment 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 permit-

A person whose substantial in-terests are affected by the De-partment's proposed permit-'ing decision may petition for v.a administrative hearing in

accordance with sections 120.589 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 Commonwaelth Boulevard, Mell monwasith Boulavard, Mall Station #35, Tallahassee, Florida 32398-3000, telephone: 904/488-9370, fex: 904/487-4938. Petitions must be filled within (14) days of receipt of this notice of intent, whichever occurs first. A patitioner must mail a copy of the petition to the applicant at the addrass indicated above, at the time of filling. The failure of any person to file a petition (or a raquest for mediation, as of any parson to file a petition (or a raquest for mediation, as discussed below) within the appropriate time period shall constitue a walver 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 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:

lowing information:

(e) The name, address and telephona number of each pe-(e) The name, address and telephona number of each petitioner, the applicant's name and address, the Parmit File Number, and the county in which the project is proposed; (b) A statement of how and when each petitioner racelved notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests ere affected by the Department's action or proposed action; (d) A statement of the material facts disputed by Petitioner, farty, (e) A statement of fects which 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 or statutes that the petitioner of the Department's ection or proposed action; and (g) A statement of the relat sought by petitioner, stating pracisely the action that the petitioner wants the Department to take with respect to the action or proposed action addressed in with respect to the action or proposed action addressed in this notice of intent.

this notice of intent. Because the administrative hearing process is designed to formulate final agency action, the filling 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 the requirements set forth

A person whose substantial in-terests are affacted by the De-pertment's proposed permit-ting decision, may elect to pursue mediation by asking all parties to the proceeding to agree to such mediation and by filling with the Department a raquest for mediation and the written agreement of all such parties to mediate the dispute. The request and agreement must be filed in (re-ceived by) the Office of Gen-eral Counsel of the Depart-ment, 3900 Commonwealth Boulevard, Mail Station #35, A person whose substantial inment, 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 madiation must 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 prorosed 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. sceola

The agreement to mediate must include the following: (a) The names, addresses, and telephona numbers of any persons who may attend the mediation; (b) The name, address, and telephone number of the mediator salected by the parties, or a provision for selecting a mediator within a specified time; (c) The agreed allocation o the costs and fase associated with the mediation; (d) The agreement of fees associated with the mediation; (d) The agreement of the parties on the confidentiation of discussions and documents introduced during mediation; (a) The date, time, and place of the first mediation session, or a deadline for mediator has yet been chosen; (f) The name of each perty's rapresentative who shall have authority to eetile or recommend estilement; and (g) ommend eettlement; and (g)
The eignaturee of ell partiee or
thair authorized represente-

As provided in section As provided in section 120.573 F.S., the timely agreement of ell parties to mediate will toll that time limitations imposed by sactions 120.569 and 120.57 for requesting and holding an administrative hearing. Unleas otherwise agreed by the parties, the mediation must be concluded within sixty deye 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 affected by such a modified final dacision of the Department have a right to petition for a hearing only in scoordence with the requirements for such patitions set forth above. If mediation terminetes without settlement of the dispute, the Department shall notify all perties 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 deadines that them will apply for chellenging the agency ection 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. Magnolla Drive, Suite 4 Tallahassae, Florida 32301
Telephone: 904/488-1344
Fax: 904/922-6979
Department of Environmental Protection
South District 2295 Victoria Avanue.

2295 Victoria Avenue,
Suite 384
Ft. Myers, Florida 33901
Telephone: 941/332-6975
Fax: 941/332-6969
Palm Basch County
Public Health Unit;
901 Evernia Street
Wast Palm Beach, Florida
33402-0029: Phona No.:
407/355-3070
Fax: 407/355-2442
(561)355-3435.
The complete project file includes the Draft Permit
Amendmant, the application, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S.
Interested parsons may contact the Administrator, New Resource Review Section 41
11 South Magnolia Drive, Suite 4, Tallahasse, Florida
32301, or call 904/488-1344, for additional Information.
PUB: The Palm Basch Post 2295 Victoria Avenue, Suite 364 for additional information. PUB: The Palm Beach Post December 24, 1996

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