



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

June 15, 1995

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Scott Shirley
Oertel, Hoffman, Fernandez & Cole, P.A.
Post Office Box 6507
Tallahassee, Florida 32314-6507

Dear Mr. Shirley:

Re: Application for Transfer of Permit No. AC16-222359, PSD-FL-198 (Package Boilers)

The Department is in receipt of your application requesting the permit to construct the above referenced air pollution source be transferred from Seminole Kraft Corporation to Stone Container Corporation. This request is acceptable and our records for construction permit AC16-222359 have been changed to show that the new owner/operator is:

Stone Container Corporation
9469 East Point Road
Post Office Box 26998
Jacksonville, FL 32229

Stone Container Corporation will be responsible for the operation of the referenced sources. A copy of this letter must be filed with the referenced construction permits and shall become a part of each permit.

Sincerely,

A handwritten signature in cursive script, appearing to read "Howard L. Rhodes".

Howard L. Rhodes, Director
Division of Air Resources
Management

HLR/jr/w


cc: C. Kirts, NE District
R. Roberson, RESD
J. Harper, EPA
J. Bunyak, NPS

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

Memorandum

**Florida Department of
Environmental Protection**

CLARK

TO: Howard L. Rhodes
FROM: Clair Fancy 
DATE: June 15, 1995
SUBJECT: Transfer of Permit No. **AC16-222359, PSD-FL-198**
Seminole Kraft Corporation

Attached for your approval and signature is a letter transferring the above referenced construction permit.

The construction permit was issued to Seminole Kraft Corporation. Mr. Scott Shirley sent an Application for Transfer requesting the name of the permittee to be changed from Seminole Kraft Corporation to Stone Container Corporation. The transfer is in name only since all other information on the permit remains unchanged.

The Bureau recommends approval of this transfer.

CF/kw

Attachment

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3 and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1 Addressee's Address

2 Restricted Delivery

Consult postmaster for fee.

3 Article Addressed to:
*Scott Shirley
 Bertel Hoffman, Fern & Cole
 PO Box 6507
 Tallahassee, FL
 32314-6507*

4a Article Number
Z 392 979 001

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

7 Date of Delivery
91

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

5 Signature (Addressee)
[Signature]

6 Signature (Agent)
[Signature]

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

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service

Z 392 979 001



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

PS Form 3800, March 1993

Sent to	<i>Scott Shirley</i>
Street and No.	<i>Bertel Hoffman</i>
P.O., State and ZIP Code	<i>Fern & Cole</i>
Postage	<i>Tall. FL \$</i>
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	<i>AC16-222359 PSO-FI-198</i>

LAW OFFICES

OERTEL, HOFFMAN, FERNANDEZ & COLE, P. A.

TIMOTHY P. ATKINSON
M. CHRISTOPHER BRYANT
R. L. CALEEN, JR.
C. ANTHONY CLEVELAND
TERRY COLE
SEGUNDO J. FERNANDEZ
KENNETH F. HOFFMAN
KENNETH G. OERTEL
PATRICIA A. RENOVITCH
SCOTT SHIRLEY
THOMAS G. TOMASELLO
W. DAVID WATKINS

2700 BLAIR STONE ROAD, SUITE C
POST OFFICE BOX 6507 (ZIP 32314-6507)
TALLAHASSEE, FLORIDA 32301

(904) 877-0099
FAX (904) 877-0981

JOHN H. MILLICAN
HAROLD QUACKENBUSH
G. DOUG DUTTON

ENVIRONMENTAL CONSULTANTS
(NOT MEMBERS OF THE FLORIDA BAR)

SPECIAL COUNSEL
FEARINGTON & McCORD
TALLAHASSEE, FLORIDA

RECEIVED

JUN 9 1995

June 8, 1995

Bureau of
Air Regulation

BY HAND DELIVERY

Mr. Clair H. Fancy
Florida Department of
Environmental Protection
111 South Magnolia
Tallahassee, Florida 32301

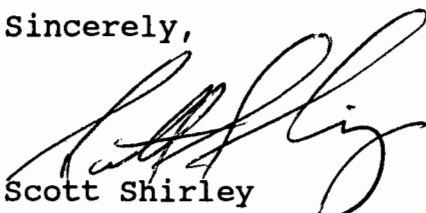
RE: Transfer of Permit No. AC16-222359 (Package Boilers)

Dear Mr. Fancy:

Enclosed is Application for Transfer of Permit form for permit numbers AC16-233359 (package boilers) currently in the name of Seminole Kraft Corporation. Based on the recent merger of Seminole Kraft into Stone Container Corporation, transfer of this permit into Stone's name is requested. The requested transfer amounts to a name change only as all other information on the permit remains unchanged.

Please contact me if you have any questions or comments.

Sincerely,


Scott Shirley

Attachment

Shirley\Fancy6.8/kmp



RECEIVED

JUN 9 1993

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

AC16-222359 APPLICATION FOR TRANSFER OF PERMIT

Bureau of Air Regulation

PSD-FL-198

July 7, 1993

April 30, 1995, with

extension of time requested on April 7, 1995, pursuant to 62-4.080(3), F.A.C.

NOTIFICATION OF SALE OR LEGAL TRANSFER

Source Name: Seminole Kraft Corporation County: Duval
Source Location: 30°25'15" N and 81°36'10" W City: Jacksonville
Permittee Name: Seminole Kraft Corporation Title: Three Package Steam Boilers
Mailing Address: 9469 East Point Road, P.O. Box 26998 Jacksonville, FL 32229

The undersigned hereby notifies the department of the sale or legal transfer of this pollution source. He further agrees to assign his rights as permittee to the applicant in the event the department agrees to the transfer of permit.

Sworn to and subscribed before me at Duval County, Jacksonville, FL this 8th day of June 19 95
Signature of Permittee: [Signature] General Manager
Date: 6/8/95 Title

Notary Public ANNE HARRIS MY COMMISSION # CC 225269 EXPIRES September 2, 1996



BONDED THROUGH TROY FAIR INSURANCE, INC.

REQUEST FOR TRANSFER OF PERMIT

Source Name: Stone Container Corporation
Applicant Name: Stone Container Corporation Title: Three Packaged Steam Boilers
Mailing Address: 9469 East Point Road, P.O. Box 26998 Jacksonville, FL 32229 Telephone: 904, 757-5172 area

Project Engineer: Name: David Buff
Mailing Address: KRN Engineering, 6241 N.W. 23rd Street, Suite 500 Gainesville, FL 32653-1500 Telephone: 904, 336-5600 area

The undersigned hereby notifies the department of his having acquired title to this pollution source. He further states that he has examined the application and documents submitted by the current permittee the basis on which Permit No. was issued by the department, and states that they accurately and completely describe the permitted activity or project. He further states that he is familiar with the permit, agrees to comply with its terms and conditions, and agrees to assume the rights and liabilities contained therein. He also agrees to promptly notify the department of any future change in ownership of, or responsibility for, the permitted activity or project.

Sworn to and subscribed before me at Duval County, Jacksonville, FL this 8th day of June 19 95
Signature of Applicant: [Signature] General Manager
Date: June 8, 1995 Title

Notary Public ANNE HARRIS MY COMMISSION # CC 225269 EXPIRES September 2, 1996



* Attach letter of authorization if longer than one year. BOND THROUGH TROY FAIR INSURANCE, INC.

State of Delaware
Office of the Secretary of State

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF OWNERSHIP, WHICH MERGES:

"SEMINOLE KRAFT CORPORATION", A DELAWARE CORPORATION,

WITH AND INTO "STONE CONTAINER CORPORATION" UNDER THE NAME OF "STONE CONTAINER CORPORATION", A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF DELAWARE, AS RECEIVED AND FILED IN THIS OFFICE THE TWENTY-EIGHTH DAY OF APRIL, A.D. 1995, AT 1 O'CLOCK P.M.

A CERTIFIED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS FOR RECORDING.



Edward J. Freel

Edward J. Freel, Secretary of State

2120437 8100M

950094438

AUTHENTICATION:

7489622

DATE:

04-20-95

Best Available Copy

CERTIFICATE OF OWNERSHIP AND MERGER

OF

SEMINOLE KRAFT CORPORATION
(a Delaware corporation)

WITH AND INTO

STONE CONTAINER CORPORATION
(a Delaware corporation)

CERTIFICATE OF OWNERSHIP AND MERGER (this "Certificate") made as of April 28, 1995 by Stone Container Corporation (the "Company") for the merger of Seminole Kraft Corporation, a Delaware corporation ("Seminole"), with and into the Company.

THE COMPANY DOES HEREBY CERTIFY:

FIRST: That the Company was incorporated on the 14th day of April, 1987 pursuant to the General Corporation Law of the State of Delaware (the "Delaware GCL"), the provisions of which permit the merger of a subsidiary corporation organized and existing under the laws of the State of Delaware into a parent corporation organized and existing under the laws of said State.

SECOND: That the Company owns all of the outstanding shares of each class of stock of Seminole, which shares will be cancelled upon the filing of this Certificate.

THIRD: That the Company, by the following resolutions of its Board of Directors, duly adopted at a meeting held March 27, 1995, determined to, and effective as of 11:59 p.m., April 30, 1995 (the "Effective Time"), does merge into itself Seminole.

WHEREAS, the Company has determined to merge, as of the Effective Time, Seminole with and into the Company.

WHEREAS, Seminole is a Delaware corporation with its registered office therein located at The Corporation Trust Company, 1209 Orange Street, City of Wilmington, County of New Castle.

WHEREAS, the total number of shares of capital stock which Seminole has authority to issue is 1,000,000, of which (i) 1,000,000 are of one class of common stock with a par value of \$1.00 per share, all of which are issued and outstanding and owned by the Company, and (ii) 300,000 are of one class of preferred stock with a par value of \$1.00 per share, of which 216,444 are issued and outstanding and owned by the Company.

Best Available Copy


WHEREAS, the Company will be the surviving corporation, with its registered office in the State of Delaware located at The Corporation Trust Company, 1209 Orange Street, City of Wilmington, County of New Castle.

WHEREAS, the Board of Directors of the Company believes that it is advisable and in the best interests of the Company and its stockholders to merge Seminole with and into the Company pursuant to Section 251 of the Delaware GCL upon the terms and conditions hereinafter set forth.

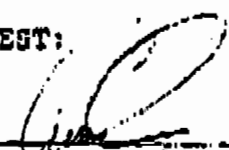
NOW, THEREFORE, BE IT RESOLVED, that the Company hereby merges into itself Seminole, and Seminole shall be, and hereby is, merged as of the Effective Time with and into the Company, which shall be the surviving corporation from and after the Effective Time, and which shall continue to exist as the surviving corporation under its present name pursuant to the provisions of the Delaware GCL. The separate existence of Seminole shall cease at the Effective Time in accordance with the provisions of the Delaware GCL.

IN WITNESS WHEREOF, the undersigned has executed this Certificate, pursuant to the approval and authority duly given by resolutions adopted by the Board of Directors of Stone Container Corporation, on this 28th day of April, 1995.

STONE CONTAINER CORPORATION

By 
Name: Roger W. Stone
Title: Chairman of the Board, President
and Chief Executive Officer

ATTEST:


BY
Name: Leslie T. Lederer
Title: Vice President

OERTEL, HOFFMAN, FERNANDEZ & COLE, P. A. file
A016-222359

TIMOTHY P. ATKINSON
 M. CHRISTOPHER BRYANT
 R. L. CALEEN, JR.
 C. ANTHONY CLEVELAND
 TERRY COLE
 SEGUNDO J. FERNANDEZ
 KENNETH F. HOFFMAN
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 SCOTT SHIRLEY
 THOMAS G. TOMASELLO
 W. DAVID WATKINS

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 POST OFFICE BOX 6507 (ZIP 32314-6507)
 TALLAHASSEE, FLORIDA 32301

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JOHN H. MILLICAN
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 G. DOUG DUTTON
 ENVIRONMENTAL CONSULTANTS
 (NOT MEMBERS OF THE FLORIDA BAR)

SPECIAL COUNSEL
 FEARINGTON & McCORD
 TALLAHASSEE, FLORIDA

RECEIVED

JUN 9 1995

June 8, 1995

Bureau of
 Air Regulation

Ernest E. Frey, P.E., Director
 District Management, Northeast District
 Florida Department of Environmental
 Protection
 7825 Bay Meadows Way, Suite B200
 Jacksonville, Florida 32256-7590

RE: Transfer of Proposed Permit No. A016-262702

Dear Mr. Frey:

On behalf of Seminole Kraft Corporation and Stone Container Corporation, we hereby request that Proposed Permit No. A016-262702, see attached Exhibit A, be transferred from Seminole Kraft Corporation to Stone Container Corporation.

Presently, proposed Permit No. A016-262702 is in the name of Seminole Kraft Corporation, whose address is 9469 Eastport Road, Post Office Box 26998, Jacksonville, Florida, 32218. The address of the permit transfer applicant is 9469 Eastport Road, Post Office Box 26998, Jacksonville, Florida, 32218, which is the same as the pre-transfer address.

The merger of Seminole Kraft Corporation and Stone Container Corporation occurred on April 28, 1995. Stone Container Corporation has always been the parent of Seminole Kraft Corporation and Stone Container Corporation will continue to be the owner of the facility under which the above-listed proposed permit would be applicable. A copy of the Certificate of Merger is attached, as Exhibit B.

On May 26, 1995, Seminole Kraft Corporation and Stone Container Corporation requested, in writing, an extension of time from the Department to submit the appropriate information concerning the transfer of the above-listed proposed permit, see attached Exhibit C. Therefore, this request is timely.

Stone Container Corporation agrees to comply with the terms and conditions of the final Department permit, A016-262702, when ultimately

Ernest E. Frey, P.E., Director
June 8, 1995
Page 2

issued, and agrees to assume the rights and liabilities contained therein.

Sincerely,



Timothy P. Atkinson

Attachments

c: Tim Smith
Howard Rhodes
Clair Fancy
Jeff Braswell
Joe Eskridge
Les Lederer
Craig Hurd
John West



Department of Environmental Protection

Lawton Chiles
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

Virginia B. Wetherell
Secretary

NOTICE OF PERMIT ISSUANCE

CERTIFIED - RETURN RECEIPT

Mr. John L. West, General Manager
Seminole Kraft Corporation
9469 East Port Road
Jacksonville, Florida 32229

Dear Mr. West:

Duval County - AP
Seminole Kraft Corporation
Three Package Steam Boilers

Enclosed is Permit Number AO16-262702 to operate the subject air pollution source, pursuant to Section 403.087, Florida Statutes (FS).


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

The Petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

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

Printed on recycled paper.

—  —
Exhibit A

PERMITTEE:
Seminole Kraft Corporation
Three Package Steam Boilers
AO16-262702

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

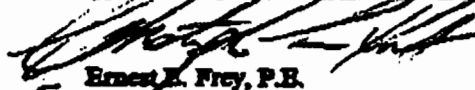
If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of the Department with regard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

This permit 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 will not be effective until further Order of the Department.

When the Order (Permit) 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 Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.


Executed in Jacksonville, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION


Ernest E. Frey, P.E.
For Director of District Management

EEF:rcf

Copies furnished to: David Buff, P.E.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to §120.52, Florida
Statutes, with the designated Department Clerk,
receipt of which is hereby acknowledged. 2/24/95

Clerk Date

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on 2/24/95 to the listed persons.



Department of Environmental Protection

Lawton Chiles
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

Virginia B. Wetherell
Secretary

PERMITTEE:

Seminole Kraft Corporation
9469 East Port Road
Jacksonville, Florida 32229

LD. Number: 31JAX160067 22,23,26
Permit/Cert Number: AO16-262702
Date of Issue: February 16, 1995
Expiration Date: January 15, 1996
County: Duval
Latitude/Longitude: 30°25'15"N; 81°36'00"W
UTM: E-(17)442.4; N-3365.4
Project: Three Package Steam Boilers

until Title V operation permit is issued on Jan 15 1997

This permit is issued under the provisions of Chapter(s) 403, Florida Statutes, and Florida Administrative Code Rule(s) 62-210, 62-212, 62-272, 62-296, 62-297 and 62-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the operation of three 125,000 lbs/hr packaged process steam boilers. Emissions shall be controlled by using clean fuel and good combustion practices.

Emission Sources are identified as follows:

- Emission Point 22: No. 1 Packaged Boiler
- Emission Point 23: No. 2 Packaged Boiler
- Emission Point 26: No. 3 Packaged Boiler

Located at 9469 East Port Road, Jacksonville, Duval County, Florida.

In accordance with:

Construction permit AC16-222359 issued 07-08-93
Completion of Construction received 12-21-94

PERMITTEE:
Seminole Kraft Corporation
9469 East Port Road
Jacksonville, Florida 32229

I.D. Number: 31JAX160067 22,23,26
Permit/Cert: AO16-262702
Date of Issue: February 16, 1995
Expiration Date: January 15, 1996

GENERAL CONDITIONS:

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

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

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

4. This permit conveys not title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

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

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

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

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

PERMITTEE:
Seminole Kraft Corporation
9469 East Port Road
Jacksonville, Florida 32229

LD. Number: 31JAX160067 22,23,26
Permit/Cert: AO16-262702
Date of Issue: February 16, 1993
Expiration Date: January 15, 1996

GENERAL CONDITIONS:

- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

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

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

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

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

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

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

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

13. This permit also constitutes:

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

PERMITTEE:
Seminole Kraft Corporation
9469 East Port Road
Jacksonville, Florida 32229

I.D. Number: 31JAX160067 22,23,26
Permit/Cert: AO16-262702
Date of Issue: February 16, 1995
Expiration Date: January 15, 1996

GENERAL CONDITIONS:

14. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
 - the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurement;
 - the dates analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses.

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

Best Available Copy

PERMITTEE:
 Seminole Kraft Corporation
 9469 East Port Road
 Jacksonville, Florida 32229

LD. Number: 31JAX160067 22,23,26
Permit/Cert: AO16-262702
Date of Issue: February 16, 1995
Expiration Date: January 15, 1996

SPECIFIC CONDITIONS:

- new*
- The LD. No. and Project name for this source shall be used on all correspondence.
 - The maximum heat input is listed below and shall not be exceeded without prior Department approval:

RATE	MATERIAL	TO
174.7 MMBTU/hr Sec S.C. 3	Natural Gas	Each SKC Packaged Boiler NOTE (1)
164.5 MMBTU/hr Sec S.C. 3	No. 2 Fuel Oil	Each SKC Packaged Boiler NOTE (1)

NOTE (1) Each of the three SKC packaged boilers are sized to provide a maximum of 125,000 lbs/hr process steam to the paper machines.

- new*
- Do those agree?*
- In accordance to the terms of the Cedar Bay Cogeneration Project (CBCP), Site Certification proceedings, SKC is limited to 640,000 lbs/hr total steam production [380,00 lbs/hr imported from CBCP facility and ~~260,000~~ lbs/hr produced from the SKC 3 packaged boilers under normal operating conditions]. When CBCP facility is not in operation or operating at reduced rates, SKC is permitted to make up the difference between the 380,000 lbs/hr imported steam rate and the steam production level that CBCP facility provides. This allows a maximum firing rate of 524 MMBTU/hr for all three packaged boilers when the CBCP facility is down.
 - The three packaged boilers may be operated continuously (8,760 H/Y).
 - The three packaged boilers shall be fired with natural gas as the primary fuel and #2 Fuel Oil with a sulfur content not to exceed 0.05 percent, by weight, as the secondary fuel.
 - All deliveries of No. 2 fuel oil shall be accompanied by a laboratory analysis quantifying the density and percent sulfur, by weight.
 - The permitted maximum allowable emission rate for each pollutant is as follows:

POLLUTANT	LOCATION LD.	EMISSION RATE			FAC RULE
		lb/MMBTU	lbs/hr	TPY	
NO _x	Each Packaged Boiler	0.2	23.6	103.4	62-296.800(2)(a)2
SO ₂	All Three Packaged Boilers Totalled	---	---	25 Sec S.C. 8	BACT
Visible Emissions	Common Exhaust Stack	5 % Opacity During Natural Gas Firing			BACT
Visible Emissions	Common Exhaust Stack	10% Opacity During No. 2 Fuel Oil Firing			BACT

PERMITTEE:
Seminole Kraft Corporation
9469 East Port Road
Jacksonville, Florida 32229

LD. Number: 31JAX160067 22,23,26
Permit/Cert: AO16-262702
Date of Issue: February 16, 1995
Expiration Date: January 15, 1996

SPECIFIC CONDITIONS:

- 4 8. Annual SO₂ emissions from No. 2 fuel oil firing, total all three boilers, shall not exceed 25 tons per year. In the event that the ceiling for SO₂ is expected to be exceeded due to unavailability of natural gas caused by factors beyond the control of SKC, SKC shall notify the Department that it anticipates exceeding the ceiling as provided herein; and, the emissions of SO₂ during the period of such curtailment shall not be counted against the yearly emissions ceiling of 25 tons unless administrative proceedings result in a finding that the exceedance was within SKC's control. In no event shall the total annual emissions of SO₂ from the three steam boilers exceed 41 tons/year. The notice shall include a statement or reasons for the request and supporting documentation, and shall be published by SKC, without supporting documents, in a newspaper of general circulation in Jacksonville, Florida, as defined in Section 403.5115(2), F.S. The filing and publication of the notice no later than 7 days following the date of exceedance, shall preclude any finding of violation by the Department until final disposition of any administrative proceedings.
9. The monitoring system (CEMS) for nitrogen oxides shall be operated, and maintained in accordance with the requirements of 40 CFR 60.48(b). In addition, the natural gas, No. 2 fuel oil, and steam flows (both from the packaged boilers and from the CBCP facility), shall be metered and continuously recorded. The data shall be logged daily and maintained so that it can be provided to the Department upon request.
- 7 10. A stoichiometric quantification for SO₂ emissions shall be utilized using the actual density and sulfur weight percent and the quantity of No. 2 fuel oil fired monthly.
- 8 11. Test the emissions for the following pollutant(s) at the intervals indicated, notify the Northeast District Office and the City of Jacksonville's Regulatory and Environmental Services Department (RESD), 15 days prior to compliance testing [FAC Rule 297.340(1)(i)], and submit the test report documentation to the Northeast District Office, the Bureau of Air Regulation Office, and RESD within 45 days after completion of the testing [FAC Rule 297.570(2)]:

POLLUTANT	TEST INTERVAL	TEST METHOD
NO _x	—	40 CFR 60.46b(e)(3)
SO ₂	See S.C. 13	40 CFR 60.49b(r)
Visible Emissions	Annually from 05-21-94	EPA 9

8 [Tests and test reports shall comply with the requirements of 40 CFR 60.49b, 40 CFR 60 Appendix A, and FAC Rules 62-297.330 and 62-297.570.

- new 12. In each test report, submit the maximum input/production rate at which this source was operated since the most recent test.
- 12 13. Pursuant to 40 CFR 60.49b(r), quarterly reports shall be submitted to the RESD office (i.e., Administrator), certifying that only very low sulfur oil (i.e., less than 0.05% sulfur, by weight), meeting this definition was combusted in the affected facility during the preceding quarter. The firing of any fuel oil and its associated SO₂ emissions shall be quantified on a monthly and per boiler basis and submitted to the RESD office by the end of the month following the end of each quarter. The quarters are defined as January - March, April - June, July - September, and October - December; also, and per boiler, the final quarterly report shall include the total amount of the fuel oil fired and the quantified associated SO₂ emissions from the year.

- Filing
Cond # 4

PERMITTEE:
Seminole Kraft Corporation
9469 East Port Road
Jacksonville, Florida 32229

ID. Number: 31JAX160067 22,23,26
Permit/Cert: AO16-262702
Date of Issue: February 16, 1995
Expiration Date: January 15, 1996

SPECIFIC CONDITIONS:

- new* 14. Submit an annual operation report for this source on the form supplied by the Department for each calendar year on or before March 1.
- new* 15. Any revision(s) to a permit (and application) must be submitted to the Department, in writing, and approved by the Department prior to implementation.
- new* 16. A completed Application for Air Permit - Lenz Form with the compliance report is due November 15, 1995.

Executed in Jacksonville, Florida.

**STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION**



Ernest E. Frey, P.E.

For Director of District Management

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

B. Johnson 2/24/95
Clerk Date



Department of Environmental Protection

Lawton Chiles
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

Virginia B. Wetherell
Secretary

TO: Chris Kirts
FROM: Ernie Frey *EF*
DATE: February 17, 1995
SUBJECT: Delegation of Authority

During my absence on February 20-21, 1995, you are authorized to sign all documents excluding NOV's, CO's and court stipulated settlements.

A copy of this memo will be filed with each document that you sign.

EEF:dr

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

Printed on recycled paper.

State of Delaware
Office of the Secretary of State

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF OWNERSHIP, WHICH MERGES:

"SEMINOLE KRAFT CORPORATION", A DELAWARE CORPORATION,
WITH AND INTO "STONE CONTAINER CORPORATION" UNDER THE NAME OF "STONE CONTAINER CORPORATION", A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF DELAWARE, AS RECEIVED AND FILED IN THIS OFFICE THE TWENTY-EIGHTH DAY OF APRIL, A.D. 1995, AT 1 O'CLOCK P.M.

A CERTIFIED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS FOR RECORDING.



Edward J. Freel

Edward J. Freel, Secretary of State

2123437 8100M

980094438

AUTHENTICATION: 7489623

DATE: 04-20-95

CERTIFICATE OF OWNERSHIP AND MERGER

OF

**SEMINOLE KRAFT CORPORATION
(a Delaware corporation)**

WITH AND INTO

**STONE CONTAINER CORPORATION
(a Delaware corporation)**

CERTIFICATE OF OWNERSHIP AND MERGER (this "Certificate") made as of April 28, 1995 by Stone Container Corporation (the "Company") for the merger of Seminole Kraft Corporation, a Delaware corporation ("Seminole"), with and into the Company.

THE COMPANY DOES HEREBY CERTIFY:

FIRST: That the Company was incorporated on the 14th day of April, 1987 pursuant to the General Corporation Law of the State of Delaware (the "Delaware GCL"), the provisions of which permit the merger of a subsidiary corporation organized and existing under the laws of the State of Delaware into a parent corporation organized and existing under the laws of said State.

SECOND: That the Company owns all of the outstanding shares of each class of stock of Seminole, which shares will be cancelled upon the filing of this Certificate.

THIRD: That the Company, by the following resolutions of its Board of Directors, duly adopted at a meeting held March 27, 1995, determined to, and effective as of 11:59 p.m., April 30, 1995 (the "Effective Time"), does merge into itself Seminole.

WHEREAS, the company has determined to merge, as of the Effective Time, Seminole with and into the Company.

WHEREAS, Seminole is a Delaware corporation with its registered office therein located at The Corporation Trust Company, 1209 Orange Street, City of Wilmington, County of New Castle.

WHEREAS, the total number of shares of capital stock which seminole has authority to issue is 1,000,000, of which (i) 1,000,000 are of one class of common stock with a par value of \$1.00 per share, all of which are issued and outstanding and owned by the Company, and (ii) 300,000 are of one class of preferred stock with a par value of \$1.00 per share, of which 216,444 are issued and outstanding and owned by the Company.

WHEREAS, the Company will be the surviving corporation, with its registered office in the State of Delaware located at The Corporation Trust Company, 1209 Orange Street, City of Wilmington, County of New Castle.

WHEREAS, the Board of Directors of the Company believes that it is advisable and in the best interests of the Company and its stockholders to merge Seminole with and into the Company pursuant to Section 251 of the Delaware GCL upon the terms and conditions hereinafter set forth.

NOW, THEREFORE, BE IT RESOLVED, that the Company hereby merges into itself Seminole, and Seminole shall be, and hereby is, merged as of the Effective Time with and into the Company, which shall be the surviving corporation from and after the Effective Time, and which shall continue to exist as the surviving corporation under its present name pursuant to the provisions of the Delaware GCL. The separate existence of Seminole shall cease at the Effective Time in accordance with the provisions of the Delaware GCL.

IN WITNESS WHEREOF, the undersigned has executed this Certificate, pursuant to the approval and authority duly given by resolutions adopted by the Board of Directors of Stone Container Corporation, on this 28th day of April, 1994.

STONE CONTAINER CORPORATION

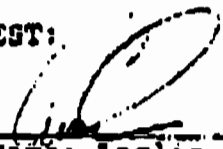
By


Name: Roger W. Stone

Title: Chairman of the Board, President
and Chief Executive Officer

ATTEST:

By


Name: Leslie T. Lederer
Title: Vice President

OERTEL, HOFFMAN, FERNANDEZ & COLE, P. A.

TIMOTHY P. ATKINSON
M. CHRISTOPHER BRYANT
R. L. CALEEN, JR.
C. ANTHONY CLEVELAND
TERRY COLE
SEGUNDO J. FERNANDEZ
KENNETH F. HOFFMAN
KENNETH G. OERTEL
PATRICIA A. RENOVITCH
SCOTT SHIRLEY
THOMAS G. TOMASELLO
W. DAVID WATKINS

2700 BLAIR STONE ROAD, SUITE C
POST OFFICE BOX 6507 (ZIP 32314-6507)
TALLAHASSEE, FLORIDA 32301

(904) 877-0099
FAX (904) 877-0981

JOHN H. MILLICAN
HAROLD QUACKENBUSH
G. DOUG DUTTON
ENVIRONMENTAL CONSULTANTS
(NOT MEMBERS OF THE FLORIDA BAR)

SPECIAL COUNSEL

FEARINGTON & McCORD
TALLAHASSEE, FLORIDA

May 26, 1995

Via Hand Delivery

Mr. Tim Smith
Deputy General Counsel
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Extension of Time on Transfer of Permits

Dear Mr. Smith:

Pursuant to our conversation today, on behalf of Seminole Kraft Corporation and Stone Container Corporation, we are hereby requesting an extension of time to submit to the Department Form 62-1.201(1) to transfer the permits listed below from Seminole Kraft Corporation to Stone Container Corporation pursuant to Rule 62-4.120, F.A.C.:

- a. DEP Construction Permit AC16-222359, PSD-FL-198A;
- b. DEP Proposed Operating Permit No. A016-262702;
- c. DEP Industrial Wastewater Permit No. I016-200147;
- d. DEP Construction Permit AC16-144791, No. 3, Lime Slaker; and
- e. DEP Operation Permit AO16-155275, No. 3, Lime Slaker

The merger of Seminole Kraft Corporation and Stone Container Corporation occurred on April 28, 1995. Stone Container Corporation has always been the parent corporation of Seminole Kraft and Stone Container Corporation will continue to be the owner of the facility under which the above-listed permits apply. In an abundance of caution, we have assumed that Rule 62-4.120, F.A.C., applies in the transfer of permits from Seminole Kraft Corporation to Stone Container Corporation. Under that rule, the thirty (30) to apply for the transfer of permits would expire on May 30, 1995 due to Memorial Day holiday. Therefore, we request a two-week extension of time in which to submit an applications for transfer of permits, or until June 9, 1995.

We are in the process of completing the appropriate forms, and we will submit the

Mr. Tim Smith
May 26, 1995
Page 2

application for transfer of permits as soon as possible.

Thank you for your assistance in this matter. Please call me if you have any questions. In my absence please contact Mr. Timothy P. Atkinson.

Sincerely,



Segundo J. Fernandez

SJF:nhg

cc: Howard Rhodes
Clair Fancy
Scott Braswell
Joe Eskridge
Les Lederer
Craig Hurd
John West
Ernest Frey

o.a.\tpa\smith.lt

Howard

LAW OFFICES

OERTEL, HOFFMAN, FERNANDEZ & COLE, P. A.

TIMOTHY P. ATKINSON
M. CHRISTOPHER BRYANT
R. L. CALEEN, JR.
C. ANTHONY CLEVELAND
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2700 BLAIR STONE ROAD, SUITE C
POST OFFICE BOX 6507 (ZIP 32314-6507)
TALLAHASSEE, FLORIDA 32301

(904) 877-0099
FAX (904) 877-0981

Chair of Howard
JOHN H. MILLICAN
HAROLD QUACKENBUSH
G. DOUG DUTTON
ENVIRONMENTAL CONSULTANTS
(NOT MEMBERS OF THE FLORIDA BAR)

SPECIAL COUNSEL
FEARINGTON & McCORD
TALLAHASSEE, FLORIDA

May 26, 1995

RECEIVED

MAY 31 1995

Via Hand Delivery

Mr. Tim Smith
Deputy General Counsel
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RECEIVED
JUN 2 1995
Bureau of Air Regulation

Re: Extension of Time on Transfer of Permits

Dear Mr. Smith:

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We are in the process of completing the appropriate forms, and we will submit the

Mr. Tim Smith
May 26, 1995
Page 2

application for transfer of permits as soon as possible.

Thank you for your assistance in this matter. Please call me if you have any questions. In my absence please contact Mr. Timothy P. Atkinson.

Sincerely,



Segundo J. Fernandez

SJF:nhg

cc: Howard Rhodes
Clair Fancy
Scott Braswell
Joe Eskridge
Les Lederer
Craig Hurd
John West
Ernest Frey

o.a.\tpa\smith.lt

① ~~Bruce Mitchell~~ - FYI

RF

(any action needed?)
that you know of

Seems that A# has been
handling this along w/ Paty.
BSR

② ~~AL~~

③ Kinani - To referenced AC, PSD files

19 June 95

~~Al & Pat,~~

Do we handle a, b, d, & e. or just a & d? Please respond.

If only a & d, a is complete and a draft for d. is attached for proof.

Thanks,

Kanan

Just the one for which they submit "appropriate forms."

Talked with O-H (Mr. Fernandez & Mr. Shirley) 6/22/95 they have not submitted forms for part d. because it is no longer active. They have requested sent forms for ACIB-222359 and we have responded. No further action required unless it is initiated by Stone-Container Corp. KAW Totilo

Kinani - Did we do this?

I did part a. I'll check Kin is sending a part D it out today.

You got appropriate forms for one of them I think. Just process the ones we get forms for. W

LAW OFFICES

OERTEL, HOFFMAN, FERNANDEZ & COLE, P. A.

TIMOTHY P. ATKINSON
M. CHRISTOPHER BRYANT
R. L. CALEEN, JR.
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2700 BLAIR STONE ROAD, SUITE C
POST OFFICE BOX 6507 (ZIP 32314-6507)
TALLAHASSEE, FLORIDA 32301

(904) 877-0099
FAX (904) 877-0981

SPECIAL COUNSEL
FEARINGTON & McCORD
TALLAHASSEE, FLORIDA

April 24, 1995

Via Hand Delivery

JOHN H. MILLICAN
HAROLD QUACKENBUSH
G. DOUG DUTTON
ENVIRONMENTAL CONSULTANTS
(NOT MEMBERS OF THE FLORIDA BAR)

RECEIVED

APR 24 1995

Bureau of
Air Regulation

Ms. Patty Adams
Florida Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Avenue
Tallahassee, Florida 32301

**Re: Application Fee for Extension of Construction
Permit No. AC16-222359 (PSD-FL-198)**

Dear Mr. Adams:

As requested by the Department via a telephonic conversation with Bruce Mitchell on today's date, enclosed please find an application fee relative to the above-referenced request for extension of time.

Please contact me if you have any questions.

Very truly yours,


Scott Shirley

SS:nhg

Enclosure

cc: Mr. Bruce Mitchell
Mr. John West
Mr. Joe Eskridge
Mr. Craig Hurd

c:\o.a.\ss\misc\adams.ltr

From: NAME: Alvaro Linero TAL
FUNC: Air Resources Management
TEL: 904/921-9532 <LINERO_A@A1@DER>
Subject: Meeting with Seminole Kraft and KBN
Date: 12-Apr-1995
Posted-date: 12-Apr-1995
Precedence: 1
To: See Below
CC: See Below

Seminole Kraft requests a meeting with us at a time when at least most of us can get together to discuss issues raised in a letter dated 4/7/95 from Oertel, Hoffman, Fernandez, & Cole to Clair Fancy. Copies were sent to Ernie Frey and to Jerry Woolsley so I think everyone at least has access to the letter.

There will likely be some additional issues in addition to those brought up in the letter. All we know now is that at least some changes would have to be made in the construction permit before the operating permit can be changed to accommodate the requests made by Seminole and that Seminole, KBN, and OHFC want to have a meeting on the matter here.

Clair definitely wants to attend. Bruce Mitchell will probably be there. John Brown plans to attend too. I might be there too. We think Jacksonville and the Northeast District should be represented.

Right now Clair is available the mornings of 4/25-27 and all of the 28th. OHFC is trying to find a time when Dave Buff of KBN can be there to coincide with Clair's schedule and, ideally, everyone else's. Charlotte, Barbara, and Kim will coordinate our participation and will alert you when we set up a date. Please contact Jim Atkinson of OHFC (904)877-0099 if you want to make sure your plans are figured into the scheduling. Let him know with whom to coordinate and if you consider your presence a must. Otherwise we will just let you know when it is and hope that you or your designee can be there.

Again, I don't know how big of a deal this is. I only know that there is a notable history. Thanks.

To Distribution List:

NAME: Clair Fancy TAL <FANCY_C@A1@DER>,
NAME: John Brown TAL <BROWN_J@A1@DER>,
NAME: Bruce Mitchell TAL <MITCHELL_B@A1@DER>, NAME: Christopher Kirts JAX
<KIRTS_C@A1@JAX1>, NAME: Robert Pace JAX <PACE_R@A1@EPIC66>

CC Distribution List:

NAME: Charlotte Hayes TAL <HAYES_C@A1@DER>,
NAME: Barbara Boutwell TAL <BOUTWELL_B@A1@DER>,
NAME: Kim Tober TAL <TOBER_K@A1@DER>

OERTEL, HOFFMAN, FERNANDEZ & COLE, P. A.

TIMOTHY P. ATKINSON
M. CHRISTOPHER BRYANT
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JOHN H. MILLICAN
HAROLD QUACKENBUSH
G. DOUG DUTTON
ENVIRONMENTAL CONSULTANTS
(NOT MEMBERS OF THE FLORIDA BAR)

SPECIAL COUNSEL
FEARINGTON & McCORD
TALLAHASSEE, FLORIDA

April 7, 1995

RECEIVED
APR 07 1995
Bureau of
Air Regulation

HAND DELIVERY

Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of Environmental Regulation
111 South Magnolia Avenue
Tallahassee, FL 32301

Re: Seminole Kraft Corporation Construction Permit No. AC16-222359 (PSD-FL-198)

Dear Mr. Fancy:

This firm represents Seminole Kraft Corporation regarding the above-referenced permit. Pursuant to Rule 62-4.080(3), FAC, this letter is to request a modification of the above-referenced construction permit to extend the permit expiration date up to and including April 30, 1996. A copy of the construction permit is attached hereto as Exhibit "A".

All construction activities and compliance testing have been completed pursuant to permit conditions. As required by Specific Condition No. 11, Seminole Kraft applied for an operating permit for the permitted sources at least 90 days prior to the expiration date of this construction permit.

On February 24, 1995, the Department issued its Notice of Permit Issuance regarding Proposed Operating Permit No. A016-262702. The Notice of Permit and Proposed Permit, attached hereto as Exhibit "B," was received by Seminole Kraft on February 27, 1995. Due to disagreement with several of the proposed permit conditions, through the undersigned counsel, Seminole Kraft requested and was granted an extension of time to file a petition for hearing. The Order Granting the Request for Extension of Time To File Petition for Hearing is attached as Exhibit "C". Currently, any petition for formal administrative proceeding is due on or before May 12, 1995. This day may be further extended, as necessary.

On April 6, 1995, the undersigned attorney, together with representatives of Seminole Kraft and its consultant, met with representatives of the Department of Environmental Protection Northeast District Office, and a representative of the City of Jacksonville RESD, regarding the requested modifications to the draft operating permit. As several of the draft specific conditions which are requested to be changed originate in the construction permit, Seminole Kraft was informed that it would be necessary to meet with Department staff in Tallahassee with regard to obtaining a modification of the construction permit prior to obtaining similar revisions to the proposed operating permit.

Clair H. Fancy, P.E., Chief
April 7, 1995
Page 2

The process of meeting with Department staff in Tallahassee and conducting negotiations regarding both the construction and draft operating permits will in all likelihood require more time than currently provided by the present construction permit expiration date of April 30, 1995. Thus, an extension of the construction permit expiration date is necessary in order to come to closure regarding all permit language.

Rule 62-4.080(3), FAC, specifically authorizes modifications of construction permits to extend the expiration date and states:

A permittee may request that a permit be extended as a modification of the permit. Such a request must be submitted to the Department in writing before the expiration of the permit. Upon timely submittal of a request for extension, unless the permit automatically expires by statute or rule, the permit will remain in effect until final agency action is taken on the request. For construction permits, an extension shall be granted if the applicant can demonstrate reasonable assurance that, upon completion, the extended permit will comply with the standards and conditions required by applicable regulation

By operation of the above-referenced provision, this written request for extension is timely and serves to automatically extend the life of the permit until final agency action is taken on this request. Furthermore, because construction on the above-referenced permit is complete and testing has already demonstrated compliance with permit conditions (as indicated by the Department's proposed issuance of the operating permit), Seminole Kraft is entitled to the extension as reasonable assurances have been provided that the sources will comply with permit conditions.

Please contact me if you have any questions or comments regarding this request for modification to extend the construction permit expiration date.

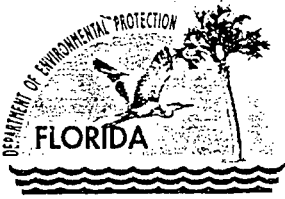
Sincerely,


Scott Shirley

SS:cjb/1003fancy.ltr

Enclosures

cc: Mr. Joe Eskridge
Mr. Allen Koleff
Mr. Curt Barton
Mr. Craig Hurd
Mr. John West
Mr. Les Lederer
Mr. Ernest Frey
Mr. Jerry Woosley



Department of Environmental Protection

Lawton Chiles
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

Virginia B. Wetherell
Secretary

July 28, 1994

Mr. L.A. Stanley, General Manager
Seminole Kraft Corporation
9469 Eastport Road
Jacksonville, Florida 32229

Duval County - AP
Seminole Kraft Corporation
Boiler Shutdown and Submission
of Permits

This letter is a reminder to return the operating permits for bark boilers 1 and 2 and power boilers 1,2,3 to the Division of Air Resource Management, Bureau of Air Regulation. In addition, notice of shutdown of these boilers shall be made to the Jacksonville Regulatory and Environmental Services Division.

Seminole Kraft was notified of the compliance of Cedar Bay Cogenerating boilers in a letter dated June 28, 1994. The activities noted above should have been completed within 30 days of said notice.

Please provide copies of the correspondence you have indicating compliance with return of permits and boiler shutdown to the Department of Environmental Protection at the address noted above.

Thank you for your cooperation.

Sincerely,

A handwritten signature in cursive script, appearing to read "Morton Benjamin".

Morton Benjamin
Compliance Engineer

CC: Mr. Kevin Grant, U.S. Generating
Mr. Hamilton Oven, P.E., FDEP
Mr. Claire Fancy, P.E., FDEP
Mr. Steve Pace, P.E., RESD

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

ROUTING AND TRANSMITTAL SLIP

TO: (NAME, OFFICE, LOCATION)

- 1. *Claire Fancy P.E.*
- 2.
- 3. *AW*
- 4. **RECEIVED**

Bruce - 8/1 *AUG 1 1993*

*This must have
crossed in the mail.
Clan*

Bureau of
Air Regulation

FROM:
AW Jay

DATE
PHONE

Florida Department of
Environmental Protection

Memorandum

TO: Ernest Frey, NED
Steve Pace, RESD
Buck Owen, DEP
Richard Donelan, DEP

FROM: Clair Fancy

DATE: July 27, 1994

SUBJECT: Surrendering of Permits by Seminole Kraft Corporation
for Power Boilers Nos. 1-3 and Bark Boilers Nos. 1 and 2

This memorandum is to inform you that the Bureau has received the above referenced permits from SKC, which satisfies a specific requirement contained in the Cedar Bay Generating Company certification (PA88-24A and PSD-FL-137A: Specific Condition No. II.D.) and in the SKC's permit for their three natural gas fired boilers (AC 16-222359: Specific Condition No. 9). If there are any questions, please call Bruce Mitchell at (904)488-1344 or SC/278-1344).

CHF/BM/rbm

cc: Howard Rhodes

8-2-94

APIS updated: 310VCL16006704 #1PB
05 #2PB
06 #1PB
07 #2PB
08 #3PB

Status on AIR030

A: Active to I: Inactive

R. Bruce Mitchell



Seminole Kraft Corporation

Jacksonville Mill

9469 Eastport Road
P.O. Box 26998
Jacksonville, Florida 32218-0998

July 22, 1994

904 751-6400

Florida Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
2700 Blair Stone Road
Tallahassée, Florida 32314

Subject: Cedar Bay Cogeneration Project PA 88-24A Condition
II D


Dear Sir;

In compliance with the condition referred to above and Permit AC 16-222359 specific condition 9, we are surrendering the operating permits for the following sources: No. 1 Power Boiler, No. 2 Power Boiler, No. 3 Power Boiler, No. 1 Bark Boiler and No. 2 Bark Boiler.

If you have any questions concerning this submittal, please contact Mr. Joe Eskridge at [904] 751-6400, Ext. 279.

Sincerely,

SEMINOLE KRAFT CORPORATION



John L. West,
General Manager

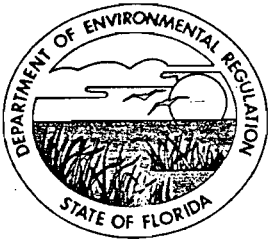
/maa

cc: Buck Oven, FDEP, Power Plant Siteing Coordinator
Ernest Frey, FDEP, N. E. District Office
Frank Stallwood, U. S. Generating Company
Craig Hurd, Stone Container Corporation/Atl
W. Joe Eskridge, Seminole Kraft Corporation

RECEIVED

JUL 26 1994

Bureau of
Air Regulation



Florida Department of Environmental Regulation

Northeast District • Suite B200, 7825 Baymeadows Way • Jacksonville, Florida 32256-7577

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

NOTICE OF PERMIT ISSUANCE

CERTIFIED - RETURN RECEIPT

Mr. L.A. Stanley, General Manager
Seminole Kraft Corporation
9469 Eastport Road
Jacksonville, Florida 32229

Dear Mr. Stanley:

Duval County - AP
Seminole Kraft Corporation
No. 1 Bark Boiler

Enclosed is Permit Number A016-225702 to operate the subject air pollution source, pursuant to Section 403.087, Florida Statutes (FS).

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

The Petition shall contain the following information;

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

PERMITEE:

Seminole Kraft Corporation

Page two

AO16-225702

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

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

This permit 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 17-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order (Permit) 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 Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Executed in Jacksonville, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Ernest E. Frey
Ernest E. Frey, P.E.

Director of District Management

EEF:bt

Copies furnished to: David A. Buff, P.E.

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

Patty Larus 6/16/93
Clerk Date

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on 6/16/93 to the listed persons.



Florida Department of Environmental Regulation

Northeast District • Suite B200, 7825 Baymeadows Way • Jacksonville, Florida 32256-7577

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

Permittee:

Seminole Kraft Corporation
9469 Eastport Road
Jacksonville, FL 32229

I.D. Number:

31-16-0067-04

Permit/Certification Number:

A016-225702

Date of Issue:

06-16-93

Expiration Date:

April 30, 1998

County:

Duval

Latitude/Longitude:

30:25:15/81:36:00

UTM: Zone 17

E-441.800 N-3365.575

Project:

No. 1 Bark Boiler

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-210, 17-212, 17-272, 17-296, 17-297 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the operation of a 193×10^6 Btu per hour carbonaceous fuel (bark) boiler for the production of steam, No. 6 fuel oil and recycled rejects may be burned as fuel.

Particulate Matter (PM) emission shall be controlled as follows:

Source

No. 1 Bark Boiler

Control Equipment

Two Sets of 4 each Buell VT Cyclone Separators in series with a Ducon Venturi Scrubber Type WO

Emission source(s) shall be as follows:

Point

04

Source

No. 1 Bark Boiler

Located at 9469 Eastport Road, Jacksonville, FL 32229

Supporting documents shall be as follows:

- (1) Permit AC16-208322
- (2) Certificate of Completion of Construction received February 5, 1993
- (3) Air Quality Division letter dated February 26, 1993
- (4) Seminole Kraft Corp. letter received March 22, 1993

Permittee:	I.D. Number:	31-16-0067-04
Seminole Kraft Corporation	Permit/Certification Number:	A016-225702
	Date of Issue:	
	Expiration Date:	April 30, 1998

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific process and operations applied for as indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, and at reasonable times, access to the premises where the permitted activity is located or conducted to:
 - a. Have access to and copy any records that must be kept under conditions of the permit;
 - b. Inspect the facility, equipment practices, or operations regulated or required under this permit; and
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

8. If, for any reason, the permittee does not comply with, or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - a. A description of and cause of non-compliance; and
 - b. The period of non-compliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

Permittee: Seminole Kraft Corporation
I.D. Number: 31-16-0067-04
Permit/Certification Number: A016-225702
Date of Issue:
Expiration Date: April 30, 1998

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

9. In accepting this permit, the permittee understands and agrees that all reports, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department, may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Section 403.111 and 403.73, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida rules of Civil Procedure and appropriate evidentiary rules.
10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Rules 17-4.120 and 17-730.300, FAC, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit, or a copy thereof, shall be kept at the work site of the permitted activity.
13. This permit constitutes:
 - () Determination of Best Available Control Technology (BACT)
 - () Determination of Prevention of Significant Deterioration (PSD)
 - () Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)
 - () Compliance with New Source Performance Standards
14. The permittee shall comply with the following:
 - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b. The permittee shall hold at the facility, or other location designated by this permit, records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), required by this permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - c. Records of monitoring information shall include:
 - the date, exact place, and time of sampling measurements;
 - the person responsible for performing the sampling or measurements;
 - the date(s) analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used;
 - the results of such analyses
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

Permittee:	I.D. Number:	31-16-0067-04
Seminole Kraft Corporation	Permit/Certification Number:	A016-225702
	Date of Issue:	
	Expiration Date:	April 30, 1998

SPECIFIC CONDITIONS:

1. Permittee shall notify the Air Quality Division (AQD) fifteen (15) days prior to source testing in accordance with Rule 17-297.340(1)(i), Florida Administrative Code (FAC), and Rule 2, Part X, Jacksonville Environmental Protection Board (JEPB).
2. Copies of the test report(s) shall be submitted to AQD within forty-five (45) days of completion of testing in accordance with Rule 17-297.450(3)(b), FAC, and Rule 2, Part X, JEPB.
3. Testing of emissions shall be accomplished at a minimum of 90% of the permitted capacity. If testing is performed at a rate less than 90% of the permitted capacity, operation shall be limited to a maximum of 110% of the tested capacity until such time as an acceptable test is performed at a minimum of 90% of the permitted capacity. When operation is restricted to a lower capacity because of testing at such a level, AQD, upon advanced notification, will allow operation at higher capacities if such operation is for demonstrating compliance at a higher capacity.
4. Any revision(s) to a permit (and application) shall be submitted to and approved by AQD prior to implementing.
5. Control equipment shall be provided with a method of access that is safe and readily accessible.
6. Stack sampling facilities shall be required and shall comply with the requirements of Rule 17-297.345, FAC, and Rule 2, Part X, JEPB.
7. Permittee shall submit an annual operation report to AQD for this (these) source (sources) on the form(s) supplied for each calendar year on or before March 1 in accordance with Rule 17-210.370(2), FAC.
8. The following pollutant(s) shall be tested at intervals indicated from the date of July 1, 1992:

<u>Pt. No.</u>	<u>Pollutant</u>	<u>Interval</u>	<u>*Test Method</u>
04	Particulate Matter (PM)	4 months	EPA Reference Method (RM) 5
	Visible Emission (VE)	upon request	EPA RM 9
	Hydrochloric Acid (HCL)	upon request	EPA RM 26

*As described in 40 CFR 60, Appendix A (July 1, 1992)

Note: Sulfur analysis upon request of the No. 6 fuel oil shall be done in accordance with ASTM-D 2622-82 (Sulfur in Petroleum Products - X-ray Spectrographic Method) or other method approved in advance by AQD and shall be reported as the sulfur content by percent (%) weight.

9. The applicable emission limiting rules shall be as follows:

<u>Pt. No.</u>	<u>Pollutant</u>	<u>¹FAC</u>	<u>²JEPB</u>	<u>Other</u>
04	PM			
	(carbonaceous fuel)	17-296.703(2)(a)	Rule 2, Part IX	
	(fuel oil)	17-296.703(2)(a)	Rule 2, Part IX	
	VE	17-296.703(2)(b)	Rule 2, Part IX	

Best Available Copy

Permittee:	I.D. Number:	31-16-0067-04
Seminole Kraft Corporation	Permit/Certification Number:	A016-225702
	Date of Issue:	
	Expiration Date:	April 30, 1998

10. The maximum allowable emissions shall be as follows:

<u>Pt. No.</u>	<u>Pollutant</u>	<u>lbs/hr</u>	<u>T/yr</u>	<u>Other</u>	<u>Opacity</u>
04	PM				
	(carbonaceous fuel)	38.60	169.07	0.2 lb/10 ⁶ Btu	
	(fuel oil)	19.30	81.06	0.1 lb/10 ⁶ Btu	
	VE				30%

Note: Any combination of carbonaceous fuel and fuel oil shall be limited to a maximum of 193 x 10⁶ Btu per hour. The allowable PM emissions limit for any combination shall be calculated based on the sum of the individual calculations for carbonaceous fuel and fuel oil.

11. Operation shall be limited as follows:

	<u>Hours per year</u>
Carbonaceous fuel and recycled rejects	8760
Fuel oil	8400

12. The maximum heat input shall be limited to 193 x 10⁶ Btu per hour of carbonaceous fuel, No. 6 fuel oil and recycled rejects.

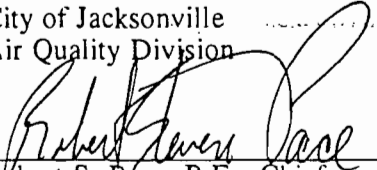
13. The maximum sulfur content of the No. 6 fuel oil shall be limited to 2.27% by weight.

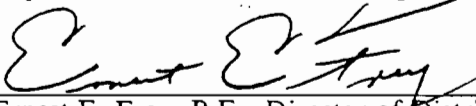
14. Pursuant to 40 CFR 60.51a, Definitions-Cofired Combustor, the plastic component and wrapping) or the total fuel feed into the No. 1 Bark Boiler shall be limited to 30 a 24-hour daily basis. However, the plastic component, referenced above, of the fuel is delivered with the recycled fiber bales and as described in Mr. Michael L. Ridd 1991, and revised in Mr. Craig Hurd's letter dated November 14, 1991.

1992
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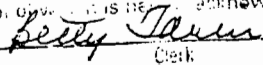
15. An Operation and Maintenance Plan dated February 8, 1992 and revised by letter dated May 25, 1982 is attached to and becomes part of this permit pursuant to RACT rules, Chapter 17-296, Florida Administrative Code. Operation and Maintenance records outlined by this plan shall be kept for a minimum period of two (2) years and be made available to AQD upon request.

16. The No. 1 Bark Boiler shall be permanently shut-down and made incapable of operation and its construction/operation permit(s) surrendered to the Department's Bureau of Air Regulation upon completion of the initial compliance tests on the Cedar Bay boilers. The Duval County's Air Quality Division shall be specifically informed in writing within thirty days after the shut-down of the No. 1 Bark Boiler.

City of Jacksonville
Air Quality Division

Robert S. Pace, P.E., Chief

State of Florida
Department of Environmental Regulation

Ernest E. Frey, P.E., Director of District Management

¹Florida Administrative Code
²Jacksonville Environmental Protection Board
RSP/EEF/nic

FILING AND ACKNOWLEDGEMENT
FILED on _____ date, pursuant to S120.52, Florida
Statutes, by the designated Department Clerk,
receipt of which is hereby acknowledged. 6/16/93
 Clerk Date

CERTIFICATION

FACILITY Seminole Kraft Corp.

SOURCE No. 1 Bark Boiler

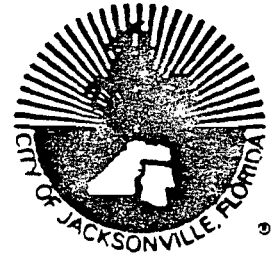
APPLICATION NUMBER A016-225702

I HEREBY CERTIFY that the engineering features described in the referenced application provide reasonable assurance of compliance with the applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Title 17. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).

Richard L. Robinson, P.E.
NAME, P.E.

Richard L. Robinson 6/11/93
Signature and Seal Date

DEPARTMENT OF HEALTH, WELFARE & BIO-ENVIRONMENTAL SERVICES
Air Resources Division



Permittee: **Seminole Kraft Corporation**

Permit/Certificate Number: **A016-225702**

This permit has been reviewed, and

 X No one requested a copy (in writing)

 Copy(s) shall be sent to:

 D. Mall
Signature

 6/11/93
Date



June 25, 1993

RESD
421 West Church Street
Jacksonville, Florida 32202

Attention: Mr. Ron Roberson

Subject: PERMIT RENEWALS FOR THREE (3) POWER BOILERS AND
TWO (2) BARK BOILERS.

Dear Mr. Roberson;

We received the renewal permits A016-228448, A016-228449, A016-228451, A016-225701, and A016-225702 today and have reviewed them.

We feel the language in Specific Condition 14 on the power boilers and 16 on the bark boiler permits should read the same as that in our other permits. A copy of that language is attached for your ready review. This is from our pending construction permit for the three (3) package boilers but is the same as in the power plant site permit.

Should you have any questions, please call Joe Eskridge at 751-6400 Ext. 279.

Sincerely,

SEMINOLE KRAFT CORPORATION

John L. West,
General Manager

attachment:

JE/maa

Permit Revision
No. 1 Bark Boiler
Permit No. A016-225702
Page 3


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

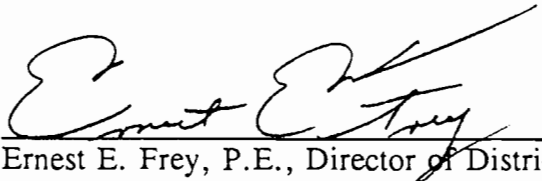
This Notice is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with this paragraph or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 17-103.070, F.A.C. Upon timely filing of a petition or request for an extension of time this Notice will not be effective until further Order of the Department.

Executed in Jacksonville, Florida.

City of Jacksonville
Regulatory & Environmental Services
Air Quality Division

State of Florida
Department of Environmental Protection


Robert S. Pace, P.E., Chief


Ernest E. Frey, P.E., Director of District
Management

Attachment to be Incorporated
Seminole Kraft Corporation letter received June 28, 1993

cc: Air Section - NEDER
AQD File 2155-I
AQD Permitting File

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to S120.52, Florida
Statutes, with the designated Department Clerk,
receipt of which is hereby acknowledged. 7/16/93
Patsy Tamm Clerk Date

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT AMENDMENT and all copies were mailed by certified mail before the close of business on 7-16-93 to the listed persons.



Lawton Chiles
Governor

Florida Department of Environmental Protection

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7577

Virginia B. Wetherell
Secretary

NOTICE OF PERMIT AMENDMENT

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. John L. West, General Manger
Seminole Kraft Corporation
P.O. Box 26998
Jacksonville, FL 32218-0998

**RE: Duval County - Air Pollution
Seminole Kraft Corporation
No. 1 Bark Boiler
Permit No. A016-225702
I.D. No. 31-16-0067-04**

Dear Mr. West:

The City of Jacksonville Regulatory and Environmental Services Department (RESD) Air Quality Division (AQD) and the State of Florida Department of Environmental Protection (DEP) hereby amend the referenced permit as follows:

SPECIFIC CONDITION NO. 16.

FROM: The No. 1 Bark Boiler shall be permanently shut-down and made incapable of operation and its construction/operation permit(s) surrendered to the Department's Bureau of Air Regulation upon completion of the initial compliance tests on the Cedar Bay boilers. The Duval County's Air Quality Division shall be specifically informed in writing within thirty days after the shut-down of the No. 1 Bark Boiler.

TO: The No. 1 Bark Boiler shall be permanently shut down and made incapable of operation and SKC shall turn in the operation permit to the Division of Air Resources Management's Bureau of Air Regulation, within 30 days of written confirmation by DER of the successful completion of the initial compliance tests on the Cedar Bay Plant's boilers. The Regulatory and Environmental Services Department of Jacksonville shall be specifically informed in writing within thirty (30) days after the shut down of No. 1 Bark Boiler.

Permit Amendment
No. 1 Bark Boiler
Permit No. A016-225702
Page 2

AQD and DEP amend the referenced permit as authorized by Florida Administrative Code (FAC) Rule 17-4.080 and Section 403.061(14) Florida Statutes (FS). This Notice of Permit Amendment does not modify any other conditions in the referenced permit. All permit conditions are in effect and fully enforceable. Please attach this Notice of Permit Amendment to your copy of the permit.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, 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 at 2600 Blair Stone Road, Tallahassee, Florida 32300-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this Notice. Petitions filed by other persons must be filed with 14 days of this Notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition with this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F. S.

The Petition shall contain the following information:

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

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision for the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14



Florida Department of Environmental Regulation

Northeast District • Suite B200, 7825 Baymeadows Way • Jacksonville, Florida 32256-7577

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

NOTICE OF PERMIT ISSUANCE

CERTIFIED - RETURN RECEIPT

Mr. L.A. Stanley, General Manager
Seminole Kraft Corporation
9469 Eastport Road
Jacksonville, Florida 32229

Dear Mr. Stanley:

Duval County - AP
Seminole Kraft Corporation
No. 2 Bark Boiler

Enclosed is Permit Number A016-225701 to operate the subject air pollution source, pursuant to Section 403.087, Florida Statutes (FS).

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

The Petition shall contain the following information;

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

PERMITTEE:
Seminole Kraft Corporation
Page two
A016-225701

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

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

This permit 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 17-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order (Permit) 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 Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Executed in Jacksonville, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Ernest E. Frey
Ernest E. Frey, P.E.

Director of District Management

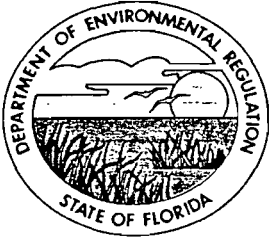
EEF:bt

Copies furnished to: David A. Buff, P.E.

FILING AND ACKNOWLEDGEMENT
FILED, on this date pursuant to §120.52, Florida
Statutes, with the designated Department Clerk,
receipt of which is hereby acknowledged 6/16/93
Betty J. ... Clerk Date

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on 6/16/93 to the listed persons.



Florida Department of Environmental Regulation

Northeast District • Suite B200, 7825 Baymeadows Way • Jacksonville, Florida 32256-7577

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

Permittee:

Seminole Kraft Corporation
9469 Eastport Road
Jacksonville, FL 32229

I.D. Number:

31-16-0067-05

Permit/Certification Number:

A016-225701

Date of Issue:

06-16-93

Expiration Date:

April 30, 1998

County:

Duval

Latitude/Longitude:

30:25:15/81:36:00

UTM: Zone 17

E-441.800 N-3365.575

Project:

No. 2 Bark Boiler

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-210, 17-212, 17-272, 17-296, 17-297 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the operation of a 193×10^6 Btu per hour carbonaceous fuel (bark) boiler for the production of steam, No. 6 fuel oil and recycled rejects may be burned as fuel.

Particulate Matter (PM) emission shall be controlled as follows:

Source

No. 2 Bark Boiler

Control Equipment

Two Sets of 4 each Buell VT Cyclone
Separators in series with a Ducon Venturi
Scrubber Type WO

Emission source(s) shall be as follows:

Point

05

Source

No. 2 Bark Boiler

Located at 9469 Eastport Road, Jacksonville, FL 32229

Supporting documents shall be as follows:

- (1) Permit AC16-208323
- (2) Certificate of Completion of Construction received February 5, 1993
- (3) Air Quality Division letter dated February 26, 1993
- (4) Seminole Kraft Corp. letter received March 22, 1993

Permittee:	I.D. Number:	31-16-0067-05
Seminole Kraft Corporation	Permit/Certification Number:	A016-225701
	Date of Issue:	
	Expiration Date:	April 30, 1998

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific process and operations applied for as indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, and at reasonable times, access to the premises where the permitted activity is located or conducted to:
 - a. Have access to and copy any records that must be kept under conditions of the permit;
 - b. Inspect the facility, equipment practices, or operations regulated or required under this permit; and
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

8. If, for any reason, the permittee does not comply with, or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - a. A description of and cause of non-compliance; and
 - b. The period of non-compliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

Permittee:	I.D. Number:	31-16-0067-05
Seminole Kraft Corporation	Permit/Certification Number:	A016-225701
	Date of Issue:	
	Expiration Date:	April 30, 1998

SPECIFIC CONDITIONS:

1. Permittee shall notify the Air Quality Division (AQD) fifteen (15) days prior to source testing in accordance with Rule 17-297.340(1)(i), Florida Administrative Code (FAC), and Rule 2, Part X, Jacksonville Environmental Protection Board (JEPB).
2. Copies of the test report(s) shall be submitted to AQD within forty-five (45) days of completion of testing in accordance with Rule 17-297.450(3)(h), FAC, and Rule 2, Part X, JEPB.
3. Testing of emissions shall be accomplished at a minimum of 90% of the permitted capacity. If testing is performed at a rate less than 90% of the permitted capacity, operation shall be limited to a maximum of 110% of the tested capacity until such time as an acceptable test is performed at a minimum of 90% of the permitted capacity. When operation is restricted to a lower capacity because of testing at such a level, AQD, upon advanced notification, will allow operation at higher capacities if such operation is for demonstrating compliance at a higher capacity.
4. Any revision(s) to a permit (and application) shall be submitted to and approved by AQD prior to implementing.
5. Control equipment shall be provided with a method of access that is safe and readily accessible.
6. Stack sampling facilities shall be required and shall comply with the requirements of Rule 17-297.345, FAC, and Rule 2, Part X, JEPB.
7. Permittee shall submit an annual operation report to AQD for this (these) source (sources) on the form(s) supplied for each calendar year on or before March 1 in accordance with Rule 17-210.370(2), FAC.
8. The following pollutant(s) shall be tested at intervals indicated from the date of July 1, 1992:

<u>Pt. No.</u>	<u>Pollutant</u>	<u>Interval</u>	<u>*Test Method</u>
05	Particulate Matter (PM)	4 months	EPA Reference Method (RM) 5
	Visible Emission (VE)	upon request	EPA RM 9
	Hydrochloric Acid (HCL)	upon request	EPA RM 26

*As described in 40 CFR 60, Appendix A (July 1, 1992)

Note: Sulfur analysis upon request of the No. 6 fuel oil shall be done in accordance with ASTM-D 2622-82 (Sulfur in Petroleum Products - X-ray Spectrographic Method) or other method approved in advance by AQD and shall be reported as the sulfur content by percent (%) weight.

9. The applicable emission limiting rules shall be as follows:

<u>Pt. No.</u>	<u>Pollutant</u>	<u>¹FAC</u>	<u>²JEPB</u>	<u>Other</u>
05	PM			
	(carbonaceous fuel)	17-296.703(2)(a)	Rule 2, Part IX	
	(fuel oil)	17-296.703(2)(a)	Rule 2, Part IX	
	VE	17-296.703(2)(h)	Rule 2, Part IX	

Permittee:
Seminole Kraft Corporation

I.D. Number:
Permit/Certification Number:
Date of Issue:
Expiration Date:

31-16-0067-05
A016-225701
April 30, 1998

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

9. In accepting this permit, the permittee understands and agrees that all reports, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department, may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Section 403.111 and 403.73, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida rules of Civil Procedure and appropriate evidentiary rules.
10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Rules 17-4.120 and 17-730.300, FAC, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit, or a copy thereof, shall be kept at the work site of the permitted activity.
13. This permit constitutes:
 - () Determination of Best Available Control Technology (BACT)
 - () Determination of Prevention of Significant Deterioration (PSD)
 - () Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)
 - () Compliance with New Source Performance Standards
14. The permittee shall comply with the following:
 - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b. The permittee shall hold at the facility, or other location designated by this permit, records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), required by this permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - c. Records of monitoring information shall include:
 - the date, exact place, and time of sampling measurements;
 - the person responsible for performing the sampling or measurements;
 - the date(s) analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used;
 - the results of such analyses
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

Permittee: Seminole Kraft Corporation
I.D. Number: 31-16-0067-05
Permit/Certification Number: A016-225701
Date of Issue:
Expiration Date: April 30, 1998

10. The maximum allowable emissions shall be as follows:

<u>Pt. No.</u>	<u>Pollutant</u>	<u>lbs/hr</u>	<u>T/yr</u>	<u>Other</u>	<u>Opacity</u>
05	PM				
	(carbonaceous fuel)	38.60	169.07	0.2 lb/10 ⁶ Btu	
	(fuel oil)	19.30	81.06	0.1 lb/10 ⁶ Btu	
	VE				30%

Note: Any combination of carbonaceous fuel and fuel oil shall be limited to a maximum of 193 x 10⁶ Btu per hour. The allowable PM emissions limit for any combination shall be calculated based on the sum of the individual calculations for carbonaceous fuel and fuel oil.

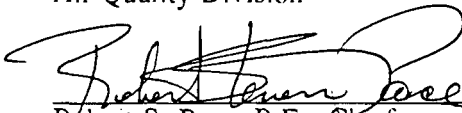
11. Operation shall be limited as follows:

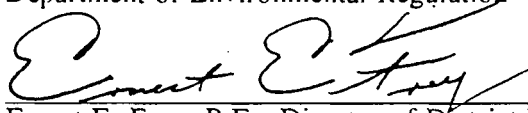
	<u>Hours per year</u>
Carbonaceous fuel and recycled rejects	8760
Fuel oil	8400

12. The maximum heat input shall be limited to 193 x 10⁶ Btu per hour of carbonaceous fuel, No. 6 fuel oil and recycled rejects.
13. The maximum sulfur content of the No. 6 fuel oil shall be limited to 2.27% by weight.
14. Pursuant to 40 CFR 60.51a, Definitions-Cofired Combustor, the plastic component (i.e., bale bindings: strapping and wrapping) or the total fuel feed into the No. 2 Bark Boiler shall be limited to 30 percent or less, by weight, on a 24-hour daily basis. However, the plastic component, referenced above, of the fuel shall be limited to only what is delivered with the recycled fiber bales and as described in Mr. Michael L. Riddle's letter dated November 6, 1991, and revised in Mr. Craig Hurd's letter dated November 14, 1991.
15. An Operation and Maintenance Plan dated February 8, 1992 and revised by letter dated May 25, 1982 is attached to and becomes part of this permit pursuant to RACT rules, Chapter 17-296, Florida Administrative Code. Operation and Maintenance records outlined by this plan shall be kept for a minimum period of two (2) years and be made available to AQD upon request.
16. The No. 2 Bark Boiler shall be permanently shut-down and made incapable of operation and its construction/operation permit(s) surrendered to the Department's Bureau of Air Regulation upon completion of the initial compliance tests on the Cedar Bay boilers. The Duval County's Air Quality Division shall be specifically informed in writing within thirty days after the shut-down of the No. 2 Bark Boiler.

City of Jacksonville
Air Quality Division

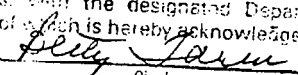
State of Florida
Department of Environmental Regulation


Robert S. Pace, P.E., Chief


Ernest E. Frey, P.E., Director of District Management

¹Florida Administrative Code
²Jacksonville Environmental Protection Board

RSP/EEF/nic s:\roberson\permits\skcbb2

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to S120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged. 6/16/93

Clerk Date

CERTIFICATION

FACILITY Seminole Kraft Corp.

SOURCE No. 2 Bark Boiler

APPLICATION NUMBER A016-225701

I HEREBY CERTIFY that the engineering features described in the referenced application provide reasonable assurance of compliance with the applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Title 17. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).

Richard L. Robinson, P.E.
NAME, P.E.

Richard L. Robinson 6/11/93
Signature and Seal Date

DEPARTMENT OF HEALTH, WELFARE
& BIO-ENVIRONMENTAL SERVICES
Air Resources Division



Permittee: Seminole Kraft Corporation

Permit/Certificate Number: A016-225701

This permit has been reviewed, and

 X No one requested a copy (in writing)

 Copy(s) shall be sent to:

D. Hall

Signature

5/28/98

Date





Lawton Chiles
Governor

Florida Department of Environmental Protection

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

Virginia B. Wetherell
Secretary

NOTICE OF PERMIT AMENDMENT

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. John L. West, General Manger
Seminole Kraft Corporation
P.O. Box 26998
Jacksonville, FL 32218-0998

**RE: Duval County - Air Pollution
Seminole Kraft Corporation
No. 2 Bark Boiler
Permit No. A016-225701
I.D. No. 31-16-0067-05**

Dear Mr. West:

The City of Jacksonville Regulatory and Environmental Services Department (RESD) Air Quality Division (AQD) and the State of Florida Department of Environmental Protection (DEP) hereby amend the referenced permit as follows:

SPECIFIC CONDITION NO. 16.

FROM: The No. 2 Bark Boiler shall be permanently shut-down and made incapable of operation and its construction/operation permit(s) surrendered to the Department's Bureau of Air Regulation upon completion of the initial compliance tests on the Cedar Bay boilers. The Duval County's Air Quality Division shall be specifically informed in writing within thirty days after the shut-down of the No. 2 Bark Boiler.

TO: The No. 2 Bark Boiler shall be permanently shut down and made incapable of operation and SKC shall turn in the operation permit to the Division of Air Resources Management's Bureau of Air Regulation, within 30 days of written confirmation by DER of the successful completion of the initial compliance tests on the Cedar Bay Plant's boilers. The Regulatory and Environmental Services Department of Jacksonville shall be specifically informed in writing within thirty (30) days after the shut down of No. 2 Bark Boiler.

Permit Amendment
No. 2 Bark Boiler
Permit No. A016-225701
Page 2

AQD and DEP amend the referenced permit as authorized by Florida Administrative Code (FAC) Rule 17-4.080 and Section 403.061(14) Florida Statutes (FS). This Notice of Permit Amendment does not modify any other conditions in the referenced permit. All permit conditions are in effect and fully enforceable. Please attach this Notice of Permit Amendment to your copy of the permit.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, 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 at 2600 Blair Stone Road, Tallahassee, Florida 32300-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this Notice. Petitions filed by other persons must be filed with 14 days of this Notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition with this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F. S.

The Petition shall contain the following information:

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

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision for the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14

Permit Revision
No. 2 Bark Boiler
Permit No. A016-225701
Page 3

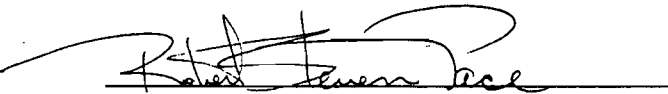
days of receipt of this Notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S. and to participate as a party to this proceeding.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

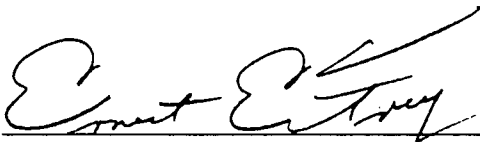
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Executed in Jacksonville, Florida.

City of Jacksonville
Regulatory & Environmental Services
Air Quality Division

State of Florida
Department of Environmental Protection


Robert S. Pace, P.E., Chief


Ernest E. Frey, P.E., Director of District
Management

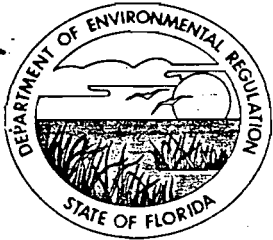
Attachment to be Incorporated
Seminole Kraft Corporation letter received June 28, 1993

cc: Air Section - NEDER
AQD File 2155-J
AQD Permitting File

FILING AND ACKNOWLEDGEMENT
FILED on this date, pursuant to S120.52, Florida
Statutes, with the designated Department Clerk,
receipt of which is hereby acknowledged. 7/16/93
Patty Skum
Clerk Date

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT AMENDMENT and all copies were mailed by certified mail before the close of business on 7-16-93 to the listed persons.



JW-090

Florida Department of Environmental Regulation

Northeast District • Suite B200, 7825 Baymeadows Way • Jacksonville, Florida 32256-7577

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

NOTICE OF PERMIT ISSUANCE

CERTIFIED - RETURN RECEIPT

Mr. L.A. Stanley, General Manager
Seminole Kraft Corporation
9469 Eastport Road
Jacksonville, Florida 32229

Dear Mr. Stanley:

Duval County - AP
Seminole Kraft Corporation
No. 1 Power Boiler

Enclosed is Permit Number A016-228448 to operate the subject air pollution source, pursuant to Section 403.087, Florida Statutes (FS).

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

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(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

PERMITTEE:

Seminole Kraft Corporation

Page two

AO16-228448

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

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Executed in Jacksonville, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Ernest E. Frey
Ernest E. Frey, P.E.

Director of District Management

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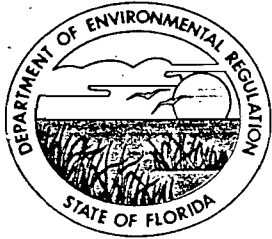
Copies furnished to: John T. McKinnon, P.E.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to S120.52 Florida
Statutes, with the designated Department Clerk,
receipt of which is hereby acknowledged.

Betty Thorne 6/16/93
Clerk Date

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on 6/16/93 to the listed persons.



Florida Department of Environmental Regulation

Northeast District • Suite B200, 7825 Baymeadows Way • Jacksonville, Florida 32256-7577

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

Permittee:

Seminole Kraft Corporation
9469 Eastport Road
Jacksonville, FL 32218

I.D. Number:

31-16-0067-06

Permit/Certification Number:

A016-228448

Date of Issue:

06-16-93

Expiration Date:

April 30, 1998

County:

Duval

Latitude/Longitude:

30:25:15/81:36:00

UTM: Zone 17

E-441.800 N-3365-575

Project:

No. 1 Power Boiler

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-210, 17-212, 17-272, 17-296, 17-297 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the operation of Power Boiler No. 1, Combustion Engineering Serial No. 16711 for the production of steam. The 185 x 10⁶ Btu per hour boiler is fired by No. 6 fuel oil.

Emission source(s) shall be as follows:

<u>Point</u>	<u>Source</u>
06	No. 1 Power Boiler

Located at 9469 Eastport Road, Jacksonville FL 32218

Supporting documents shall be as follows:

- (1) Permit A016-149237
- (2) Permit application received March 22, 1993

Permittee:	I.D. Number:	31-16-0067-06
Seminole Kraft Corporation	Permit/Certification Number:	A016-228448
	Date of Issue:	
	Expiration Date:	April 30, 1998

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific process and operations applied for as indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, and at reasonable times, access to the premises where the permitted activity is located or conducted to:
 - a. Have access to and copy any records that must be kept under conditions of the permit;
 - b. Inspect the facility, equipment practices, or operations regulated or required under this permit; and
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

8. If, for any reason, the permittee does not comply with, or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - a. A description of and cause of non-compliance; and
 - b. The period of non-compliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

Permittee:
Seminole Kraft Corporation

I.D. Number:
Permit/Certification Number:
Date of Issue:
Expiration Date:

31-16-0067-06
A016-228448
April 30, 1998

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

9. In accepting this permit, the permittee understands and agrees that all reports, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department, may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Section 403.111 and 403.73, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida rules of Civil Procedure and appropriate evidentiary rules.
10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Rules 17-4.120 and 17-730.300, FAC, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit, or a copy thereof, shall be kept at the work site of the permitted activity.
13. This permit constitutes:
 - () Determination of Best Available Control Technology (BACT)
 - () Determination of Prevention of Significant Deterioration (PSD)
 - () Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)
 - () Compliance with New Source Performance Standards
14. The permittee shall comply with the following:
 - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b. The permittee shall hold at the facility, or other location designated by this permit, records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), required by this permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - c. Records of monitoring information shall include:
 - the date, exact place, and time of sampling measurements;
 - the person responsible for performing the sampling or measurements;
 - the date(s) analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used;
 - the results of such analyses
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

Permittee:
Seminole Kraft Corporation

I.D. Number:
Permit/Certification Number:
Date of Issue:
Expiration Date:

31-16-0067-06
A016-228448
April 30, 1998

SPECIFIC CONDITIONS:

1. Permittee shall notify the Air Quality Division (AQD) fifteen (15) days prior to source testing in accordance with Rule 17-297.340(1)(i), Florida Administrative Code (FAC), and Rule 2, Part X, Jacksonville Environmental Protection Board (JEPB).
2. Copies of the test report(s) shall be submitted to AQD within forty-five (45) days of completion of testing in accordance with Rule 17-297.450(3)(b), FAC, and Rule 2, Part X, JEPB.
3. Testing of emissions shall be accomplished at a minimum of 90% of the permitted capacity. If testing is performed at a rate less than 90% of the permitted capacity, operation shall be limited to a maximum of 110% of the tested capacity until such time as an acceptable test is performed at a minimum of 90% of the permitted capacity. When operation is restricted to a lower capacity because of testing at such a level, AQD, upon advanced notification, will allow operation at higher capacities if such operation is for demonstrating compliance at a higher capacity.
4. Any revision(s) to a permit (and application) shall be submitted to and approved by AQD prior to implementing.
5. Control equipment shall be provided with a method of access that is safe and readily accessible.
6. Stack sampling facilities shall be required and shall comply with the requirements of Rule 17-297.345, FAC, and Rule 2, Part X, JEPB.
7. Permittee shall submit an annual operation report to AQD for this (these) source (sources) on the form(s) supplied for each calendar year on or before March 1 in accordance with Rule 17-210.370(2), FAC.
8. The following pollutant(s) shall be tested at intervals indicated from the date of July 1, 1992:

<u>Pt. No.</u>	<u>Pollutant</u>	<u>Interval</u>	<u>*Test Method</u>
06	Particulate Matter (PM)	6 months	EPA Reference Method (RM) 5
	Visible Emission (VE)	6 months	EPA RM 9

*As described in 40 CFR 60, Appendix A (July 1, 1992)

Note: Monthly sulfur analysis of the No. 6 fuel oil shall be done in accordance with ASTM D 2622-82 (Sulfur in Petroleum Products X-Ray Spectrographic Method) or other method approved in advance by AQD and shall be reported as the sulfur content by percent (%) weight. Analysis shall be maintained on file and made available to AQD upon request.

9. The applicable emission limiting rules shall be as follows:

<u>Pt. No.</u>	<u>Pollutant</u>	<u>¹FAC</u>	<u>²JEPB</u>	<u>Other</u>
06	PM			
	(non-soot blowing)	17-296.702(2)(a)	Rule 2, Part IX	
	(soot blowing)	17-210.700(3)	Rule 2, Part II	
	VE			
	(non-soot blowing)	17-296.702(2)(b)	Rule 2, Part IX	
	(soot blowing)	17-210.700(3)	Rule 2, Part II	

Permittee:
Seminole Kraft Corporation

I.D. Number: 31-16-0067-06
Permit/Certification Number: A016-228448
Date of Issue:
Expiration Date: April 30, 1998

10. The maximum allowable emissions shall be as follows:

<u>Pt. No.</u>	<u>Pollutant</u>	<u>lbs/hr</u>	<u>T/yr</u>	<u>Other</u>	<u>Opacity</u>
06	PM				
	(non-soot blowing)	18.50	70.90	0.1 lb/10 ⁶ Btu	
	(soot blowing)	55.50	30.39	0.3 lb/10 ⁶ Btu	
	VE				
	(non-soot blowing)				20%
	(soot blowing)				60%

11. Operation shall be limited to 8760 hours per year.

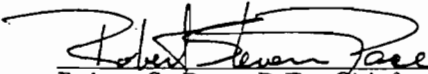
12. The maximum heat input shall be limited to 185 x 10⁶ Btu per hour of No. 6 fuel oil.

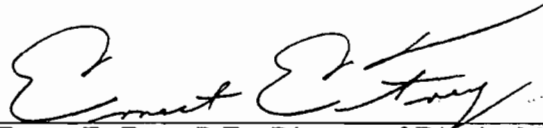
13. The maximum sulfur content of the No. 6 fuel oil shall be limited to 2.27% by weight.

14. The No. 1 Power Boiler shall be permanently shut-down and made incapable of operation and its construction/operation permit(s) surrendered to the Department's Bureau of Air Regulation upon completion of the initial compliance tests on the Cedar Bay Boilers. The Duval County's Air Quality Division shall be specifically informed in writing within thirty days after the shut-down of the No. 1 Power Boiler.

City of Jacksonville
Air Quality Division

State of Florida
Department of Environmental Regulation

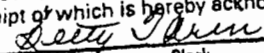

Robert S. Pace, P.E., Chief


Ernest E. Frey, P.E., Director of District Management

¹Florida Administrative Code

²Jacksonville Environmental Protection Board

RSP/EEF/nic

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to S120.52, Florida
Statutes, with the designated Department Clerk,
receipt of which is hereby acknowledged. 6/16/93

Clerk Date

CERTIFICATION

FACILITY Seminole Kraft Corp.

SOURCE No. 1 Power Boiler

APPLICATION NUMBER A016-228448

I HEREBY CERTIFY that the engineering features described in the referenced application provide reasonable assurance of compliance with the applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Title 17. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).

Richard L. Robinson, P.E.
NAME, P.E.

Richard L. Robinson 6/11/93
Signature and Seal Date



Lawton Chiles
Governor

Florida Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-3400
NOTICE OF PERMIT AMENDMENT

Virginia B. Wetherell
Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. John L. West, General Manager
Seminole Kraft Corporation
P.O. Box 26998
Jacksonville, FL 32218-0998

**RE: Duval County - Air Pollution
Seminole Kraft Corporation
No. 1 Power Boiler
Permit No. A016-228448
I.D. No. 31-16-0067-06**

Dear Mr. West:

The City of Jacksonville Regulatory and Environmental Services Department (RESD) Air Quality Division (AQD) and the State of Florida Department of Environmental Protection (DEP) hereby amend the referenced permit as follows:

SPECIFIC CONDITION 14.

FROM: The No. 1 Power Boiler shall be permanently shut-down and made incapable of operation and its construction/operation permit(s) surrendered to the Department's Bureau of Air Regulation upon completion of the initial compliance tests on the Cedar Bay Boilers. The Duval County's Air Quality Division shall be specifically informed in writing within thirty days after the shut-down of the No. 1 Power Boiler.

TO: The No. 1 Power Boiler shall be permanently shut-down and made incapable of operation and, SKC shall turn in the operation permit to the Division of Air Resources Management's Bureau of Air Regulation, within 30 days of written confirmation by DEP for the successful completion of the initial compliance tests on the Cedar Bay Plant's boilers. The Regulatory and Environmental Services Department of Jacksonville shall be specifically informed in writing within thirty days after the shut down of No. 1 Power Boiler.

**Permit Amendment
No. 1 Power Boiler
Permit No. A016-228448
Page 2**

AQD and DEP amend the referenced permit as authorized by Florida Administrative Code (FAC) Rule 17-4.080 and Section 403.061(14) Florida Statutes (FS). This Notice of Permit Amendment does not modify any other conditions in the referenced permit. All permit conditions are in effect and fully enforceable. Please attach this Notice of Permit Amendment to your copy of the permit.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, 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 at 2600 Blair Stone Road, Tallahassee, Florida 32300-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this Notice. Petitions filed by other persons must be filed with 14 days of this Notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition with this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The Petition shall contain the following information:

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

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision for the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14

**Permit Amendment
No. 1 Power Boiler
Permit No. A016-228448
Page 3**

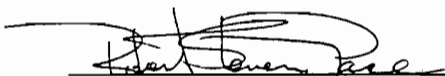
days of receipt of this Notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S. and to participate as a party to this proceeding.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

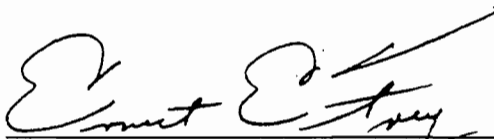
This Notice is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with this paragraph or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 17-103.070, F.A.C. Upon timely filing of a petition or request for an extension of time this Notice will not be effective until further Order of the Department.

Executed in Jacksonville, Florida.

City of Jacksonville
Regulatory & Environmental Services
Air Quality Division

State of Florida
Department of Environmental Protection


Robert S. Pace, P.E., Chief


Ernest E. Frey, P.E., Director of District
Management

Attachment to be Incorporated
Seminole Kraft Corp. letter received June 28, 1993

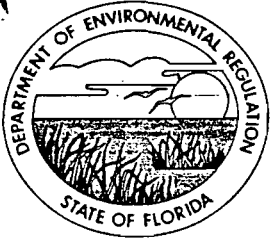
cc: Air Section - NEDEP
AQD File 2155-C
AQD Permitting File

s:\roberson\revision\SKCPB1

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to §120.57, F.S.,
Statutes, with the designated Department
receipt of which is hereby acknowledged. 7-16-93
Disty Adams Clerk Date

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT AMENDMENT and all copies were mailed by certified mail before the close of business on 7-16-93 to the listed persons.



JW-ADD

Florida Department of Environmental Regulation

Northeast District • Suite B200, 7825 Baymeadows Way • Jacksonville, Florida 32256-7577

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

NOTICE OF PERMIT ISSUANCE

CERTIFIED - RETURN RECEIPT

Mr. L.A. Stanley, General Manager
Seminole Kraft Corporation
9469 Eastport Road
Jacksonville, Florida 32229

Dear Mr. Stanley:

Duval County - AP
Seminole Kraft Corporation
No. 2 Power Boiler

Enclosed is Permit Number A016-228449 to operate the subject air pollution source, pursuant to Section 403.087, Florida Statutes (FS).

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

The Petition shall contain the following information;

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

PERMITTEE:
Seminole Kraft Corporation
Page two
A016-228449

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

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

This permit 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 17-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order (Permit) 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 Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Executed in Jacksonville, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Ernest E. Frey
Ernest E. Frey, P.E.

Director of District Management

EEF:bt

Copies furnished to: John T. McKinnon, P.E.

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

Deely Tamm 6/16/93
Clerk Date

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on 6/16/93 to the listed persons.



Florida Department of Environmental Regulation

Northeast District • Suite B200, 7825 Baymeadows Way • Jacksonville, Florida 32256-7577

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

Permittee:	I.D. Number:	31-16-0067-07
Seminole Kraft Corporation	Permit/Certification Number:	A016-228449
9469 Eastport Road	Date of Issue:	06-16-93
Jacksonville, FL 32218	Expiration Date:	April 30, 1998
	County:	Duval
	Latitude/Longitude:	30:25:15/81:36:00
	UTM: Zone 17	E-441.800 N-3365.575
	Project:	No. 2 Power Boiler

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-210, 17-212, 17-272, 17-296, 17-297 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the operation of Power Boiler No. 2, Combustion Engineering Ser. No. 18159 for the production of steam. The 246×10^6 Btu per hour boiler is fired by No. 6 fuel oil.

Emission source(s) shall be as follows:

<u>Point</u>	<u>Source</u>
07	No. 2 Power Boiler

Located at 9469 Eastport Road, Jacksonville, FL 32218

Supporting documents shall be as follows:

- (1) Permit A016-149238
- (2) Permit application received March 22, 1993

Permittee:	I.D. Number:	31-16-0067-07
Seminole Kraft Corporation	Permit/Certification Number:	A016-228449
	Date of Issue:	
	Expiration Date:	April 30, 1998

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific process and operations applied for as indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, and at reasonable times, access to the premises where the permitted activity is located or conducted to:
 - a. Have access to and copy any records that must be kept under conditions of the permit;
 - b. Inspect the facility, equipment practices, or operations regulated or required under this permit; and
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

8. If, for any reason, the permittee does not comply with, or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - a. A description of and cause of non-compliance; and
 - b. The period of non-compliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

Permittee: Seminole Kraft Corporation	I.D. Number: Permit/Certification Number: Date of Issue: Expiration Date:	31-16-0067-07 A016-228449 April 30, 1998
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The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all reports, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department, may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Section 403.111 and 403.73, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida rules of Civil Procedure and appropriate evidentiary rules.
10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Rules 17-4.120 and 17-730.300, FAC, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit, or a copy thereof, shall be kept at the work site of the permitted activity.
13. This permit constitutes:
 - Determination of Best Available Control Technology (BACT)
 - Determination of Prevention of Significant Deterioration (PSD)
 - Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)
 - Compliance with New Source Performance Standards
14. The permittee shall comply with the following:
 - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b. The permittee shall hold at the facility, or other location designated by this permit, records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), required by this permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - c. Records of monitoring information shall include:
 - the date, exact place, and time of sampling measurements;
 - the person responsible for performing the sampling or measurements;
 - the date(s) analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used;
 - the results of such analyses
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

Permittee:
Seminole Kraft Corporation

I.D. Number: 31-16-0067-07
 Permit/Certification Number: A016-228449
 Date of Issue:
 Expiration Date: April 30, 1998

SPECIFIC CONDITIONS:

1. Permittee shall notify the Air Quality Division (AQD) fifteen (15) days prior to source testing in accordance with Rule 17-297.340(1)(i), Florida Administrative Code (FAC), and Rule 2, Part X, Jacksonville Environmental Protection Board (JEPB).
2. Copies of the test report(s) shall be submitted to AQD within forty-five (45) days of completion of testing in accordance with Rule 17-297.450(3)(b), FAC, and Rule 2, Part X, JEPB.
3. Testing of emissions shall be accomplished at a minimum of 90% of the permitted capacity. If testing is performed at a rate less than 90% of the permitted capacity, operation shall be limited to a maximum of 110% of the tested capacity until such time as an acceptable test is performed at a minimum of 90% of the permitted capacity. When operation is restricted to a lower capacity because of testing at such a level, AQD, upon advanced notification, will allow operation at higher capacities if such operation is for demonstrating compliance at a higher capacity.
4. Any revision(s) to a permit (and application) shall be submitted to and approved by AQD prior to implementing.
5. Control equipment shall be provided with a method of access that is safe and readily accessible.
6. Stack sampling facilities shall be required and shall comply with the requirements of Rule 17-297.345, FAC, and Rule 2, Part X, JEPB.
7. Permittee shall submit an annual operation report to AQD for this (these) source (sources) on the form(s) supplied for each calendar year on or before March 1 in accordance with Rule 17-210.370(2), FAC.
8. The following pollutant(s) shall be tested at intervals indicated from the date of July 1, 1992:

<u>Pt. No.</u>	<u>Pollutant</u>	<u>Interval</u>	<u>*Test Method</u>
07	Particulate Matter (PM)	6 months	EPA Reference Method (RM) 5
	Visible Emissions (VE)	6 months	EPA RM 9

*As described in 40 CFR 60, Appendix A (July 1, 1992)

Note: Monthly sulfur analysis of the No. 6 fuel oil shall be done in accordance with ASTM D 2622-82 (Sulfur in Petroleum Products X-Ray Spectrographic Method) or other method approved in advance by AQD and shall be reported as the sulfur content by percent (%) weight. Analysis shall be maintained on file and made available to AQD upon request.

9. The applicable emission limiting rules shall be as follows:

<u>Pt. No.</u>	<u>Pollutant</u>	<u>¹FAC</u>	<u>²JEPB</u>	<u>Other</u>
07	PM			
	(non-soot blowing)	17-296.702(2)(a)	Rule 2, Part IX	
	(soot blowing)	17-210.700(3)	Rule 2, Part II	
	VE			
	(non-soot blowing)	17-296.702(2)(b)	Rule 2, Part IX	
	(soot blowing)	17-210.700(3)	Rule 2, Part II	

Permittee:
Seminole Kraft Corporation

I.D. Number:
Permit/Certification Number:
Date of Issue:
Expiration Date:

31-16-0067-07
A016-228449
April 30, 1998

10. The maximum allowable emissions shall be as follows:

<u>Pt. No.</u>	<u>Pollutant</u>	<u>lbs/hr</u>	<u>T/yr</u>	<u>Other</u>	<u>Opacity</u>
07	PM				
	(non-soot blowing)	24.60	94.28	0.1 lb/10 ⁶ Btu	
	(soot blowing)	73.80	40.41	0.3 lb/10 ⁶ Btu	
	VE				
	(non-soot blowing)				20%
	(soot blowing)				60%

11. Operation shall be limited to 8760 hours per year.

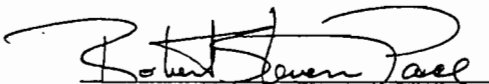
12. The maximum heat input shall be limited to 246 x 10⁶ Btu per hour of No. 6 fuel oil.

13. The maximum sulfur content of the No. 6 fuel oil shall be limited to 2.27% by weight.

14. The No. 2 Power Boiler shall be permanently shut-down and made incapable of operation and its construction/operation permit(s) surrendered to the Department's Bureau of Air Regulation upon completion of the initial compliance tests on the Cedar Bay Boilers. The Duval County's Air Quality Division shall be specifically informed in writing within thirty days after the shut-down of the No. 2 Power Boiler.

City of Jacksonville
Air Quality Division

State of Florida
Department of Environmental Regulation

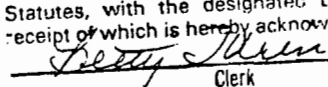

Robert S. Pace, P.E., Chief


Ernest E. Frey, P.E., Director of District Management

¹Florida Administrative Code
²Jacksonville Environmental Protection Board

RSP/EEF/nic

s:\roberson\permits\skcpb2

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to S120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged. 6/16/93

Clerk Date

CERTIFICATION

FACILITY Seminole Kraft Corporation

SOURCE No. 2 Power Boiler

APPLICATION NUMBER A016-228449

I HEREBY CERTIFY that the engineering features described in the referenced application provide reasonable assurance of compliance with the applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Title 17. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).

Richard L. Robinson, P.E.
NAME, P.E.

Richard L. Robinson 6/11/93
Signature and Seal Date

DEPARTMENT OF HEALTH, WELFARE
& BIO-ENVIRONMENTAL SERVICES
Air Resources Division



Permittee: Seminole Kraft Corporation

Permit/Certificate Number: A016-228449

This permit has been reviewed, and

 X No one requested a copy (in writing)

 Copy(s) shall be sent to:

 W. Bell
Signature

 6/7/93
Date





Lawton Chiles
Governor

Florida Department of Environmental Protection

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

Virginia B. Wetherell
Secretary

NOTICE OF PERMIT AMENDMENT

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. John L. West, General Manger
Seminole Kraft Corporation
P.O. Box 26998
Jacksonville, FL 32218-0998

**RE: Duval County - Air Pollution
Seminole Kraft Corporation
No. 2 Power Boiler
Permit No. A016-228449
I.D. No. 31-16-0067-07**

Dear Mr. West:

The City of Jacksonville Regulatory and Environmental Services Department (RESD) Air Quality Division (AQD) and the State of Florida Department of Environmental Protection (DEP) hereby amend the referenced permit as follows:

SPECIFIC CONDITION 14.

FROM: The No. 2 Power Boiler shall be permanently shut-down and made incapable of operation and its construction/operation permit(s) surrendered to the Department's Bureau of Air Regulation upon completion of the initial compliance tests on the Cedar Bay Boilers. The Duval County's Air Quality Division shall be specifically informed in writing within thirty days after the shut-down of the No. 2 Power Boiler.

TO: The No. 2 Power Boiler shall be permanently shut down and made incapable of operation and SKC shall turn in the operation permit to the Division of Air Resources Mangement's Bureau of Air Regulation, within thirty days (30) days of written confirmation by DEP of the successful completion of the initial compliance tests on the Cedar Bay Plant's boilers. The Regulatory and Environmental Services Department of Jacksonville shall be specifically informed in writing within thirty (30) days after the shut down of the No. 2 Power Boiler.

**Permit Amendment
No. 2 Power Boiler
Permit No. AO16-228449
Page 2**

AQD and DEP amend the referenced permit as authorized by Florida Administrative Code (FAC) Rule 17-4.080 and Section 403.061(14) Florida Statutes (FS). This Notice of Permit Amendment does not modify any other conditions in the referenced permit. All permit conditions are in effect and fully enforceable. Please attach this Notice of Permit Amendment to your copy of the permit.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, 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 at 2600 Blair Stone Road, Tallahassee, Florida 32300-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this Notice. Petitions filed by other persons must be filed with 14 days of this Notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition with this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F. S.

The Petition shall contain the following information:

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

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision for the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this Notice in the Office of General Counsel at the above address of the

Best Available Copy

**Permit Revision
No. 2 Power Boiler
Permit No. A016-228449
Page 3**

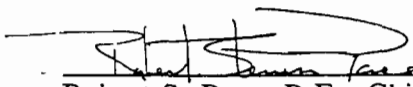
Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S. and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

This Notice is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with this paragraph 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 17-103.070, F.A.C. Upon timely filing of a petition or request for an extension of time this Notice will not be effective until further Order of the Department.

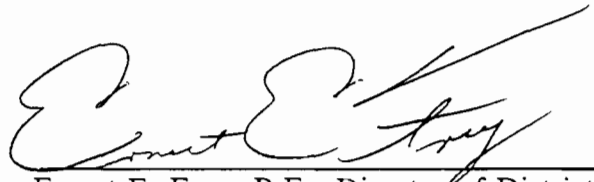
Executed in Jacksonville, Florida.

City of Jacksonville
Regulatory & Environmental Services
Air Quality Division

State of Florida
Department of Environmental Protection



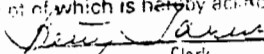
Robert S. Pace, P.E., Chief



Ernest E. Frey, P.E., Director of District Management

Attachment to be Incorporated

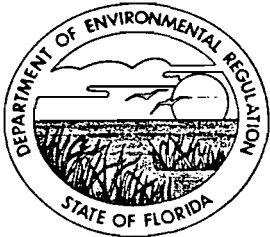
cc: Air Section - NEDER
AQD File
AQD Permitting File

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, of which is hereby acknowledged. 7-16-93
 Clerk Date

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT AMENDMENT and all copies were mailed by certified mail before the close of business on 7-16-93 to the listed persons.

JW-ADD



Florida Department of Environmental Regulation

Northeast District • Suite B200, 7825 Baymeadows Way • Jacksonville, Florida 32256-7577

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

NOTICE OF PERMIT ISSUANCE

CERTIFIED - RETURN RECEIPT

Mr. L.A. Stanley, General Manager
Seminole Kraft Corporation
9469 Eastport Road
Jacksonville, Florida 32229

Dear Mr. Stanley:

Duval County - AP
Seminole Kraft Corporation
No. 3 Power Boiler

Enclosed is Permit Number A016-228451 to operate the subject air pollution source, pursuant to Section 403.087, Florida Statutes (FS).

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

The Petition shall contain the following information;

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

PERMITTEE:
Seminole Kraft Corporation
Page two
AO16-228451

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

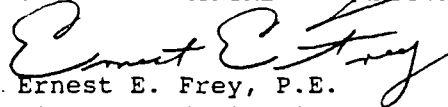
If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of the Department with regard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

This permit 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 17-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order (Permit) 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 Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Executed in Jacksonville, Florida.

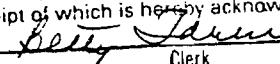
STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION


Ernest E. Frey, P.E.

Director of District Management

EEF:bt

Copies furnished to: John T. McKinnon, P.E.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to §120.52, Florida
Statutes, with the designated Department Clerk,
receipt of which is hereby acknowledged. 6/16/93
 Clerk Date

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on 6/16/93 to the listed persons.



Florida Department of Environmental Regulation

Northeast District • Suite B200, 7825 Baymeadows Way • Jacksonville, Florida 32256-7577

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

Permittee:

Seminole Kraft Corporation
9469 Eastport Road
Jacksonville, FL 32218

I.D. Number:

31-16-0067-08

Permit/Certification Number:

AC16-228451

Date of Issue:

06-16-93

Expiration Date:

April 30, 1998

County:

Duval

Latitude/Longitude:

30:25:15/81:36:00

UTM: Zone 17

E-441.800 N-3365.575

Project:

No. 3 Power Boiler

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-210, 17-212, 17-272, 17-296, 17-297 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the operation of Power Boiler No. 3, Combustion Engineering Ser. No. 18161 for the production of steam. The 246×10^6 Btu per hour boiler is fired by No. 6 fuel oil.

Emission source(s) shall be as follows:

Point

08

Source

No. 3 Power Boiler

Located at 9469 Eastport Road, Jacksonville, FL 32218

Supporting documents shall be as follows:

- (1) Permit A016-149239
- (2) Permit application received March 22, 1993

Permittee:	I.D. Number:	31-16-0067-08
Seminole Kraft Corporation	Permit/Certification Number:	A016-228451
	Date of Issue:	
	Expiration Date:	April 30, 1998

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific process and operations applied for as indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, and at reasonable times, access to the premises where the permitted activity is located or conducted to:
 - a. Have access to and copy any records that must be kept under conditions of the permit;
 - b. Inspect the facility, equipment practices, or operations regulated or required under this permit; and
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

8. If, for any reason, the permittee does not comply with, or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - a. A description of and cause of non-compliance; and
 - b. The period of non-compliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

Permittee:	I.D. Number:	31-16-0067-08
Seminole Kraft Corporation	Permit/Certification Number:	A016-228451
	Date of Issue:	
	Expiration Date:	April 30, 1998

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

9. In accepting this permit, the permittee understands and agrees that all reports, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department, may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Section 403.111 and 403.73, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida rules of Civil Procedure and appropriate evidentiary rules.
10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Rules 17-4.120 and 17-730.300, FAC, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit, or a copy thereof, shall be kept at the work site of the permitted activity.
13. This permit constitutes:
 - () Determination of Best Available Control Technology (BACT)
 - () Determination of Prevention of Significant Deterioration (PSD)
 - () Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)
 - () Compliance with New Source Performance Standards
14. The permittee shall comply with the following:
 - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b. The permittee shall hold at the facility, or other location designated by this permit, records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), required by this permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - c. Records of monitoring information shall include:
 - the date, exact place, and time of sampling measurements;
 - the person responsible for performing the sampling or measurements;
 - the date(s) analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used;
 - the results of such analyses
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

Permittee:
Seminole Kraft Corporation

I.D. Number: 31-16-0067-08
Permit/Certification Number: A016-228451
Date of Issue:
Expiration Date: April 30, 1998

SPECIFIC CONDITIONS:

1. Permittee shall notify the Air Quality Division (AQD) fifteen (15) days prior to source testing in accordance with Rule 17-297.340(1)(i), Florida Administrative Code (FAC), and Rule 2, Part X, Jacksonville Environmental Protection Board (JEPB).
2. Copies of the test report(s) shall be submitted to AQD within forty-five (45) days of completion of testing in accordance with Rule 17-297.450(3)(b), FAC, and Rule 2, Part X, JEPB.
3. Testing of emissions shall be accomplished at a minimum of 90% of the permitted capacity. If testing is performed at a rate less than 90% of the permitted capacity, operation shall be limited to a maximum of 110% of the tested capacity until such time as an acceptable test is performed at a minimum of 90% of the permitted capacity. When operation is restricted to a lower capacity because of testing at such a level, AQD, upon advanced notification, will allow operation at higher capacities if such operation is for demonstrating compliance at a higher capacity.
4. Any revision(s) to a permit (and application) shall be submitted to and approved by AQD prior to implementing.
5. Control equipment shall be provided with a method of access that is safe and readily accessible.
6. Stack sampling facilities shall be required and shall comply with the requirements of Rule 17-297.345 FAC, and Rule 2, Part X, JEPB.
7. Permittee shall submit an annual operation report to AQD for this (these) source (sources) on the form(s) supplied for each calendar year on or before March 1 in accordance with Rule 17-210.370(2), FAC.
8. The following pollutant(s) shall be tested at intervals indicated from the date of July 1, 1992:

<u>Pt. No.</u>	<u>Pollutant</u>	<u>Interval</u>	<u>*Test Method</u>
08	Particulate Matter (PM)	6 months	EPA Reference Method (RM) 5
	Visible Emissions (VE)	6 months	EPA RM 9

*As described in 40 CFR 60, Appendix A (July 1, 1992)

Note: Monthly sulfur analysis of the No. 6 fuel oil shall be done in accordance with ASTM D 2622-82 (Sulfur in Petroleum Products X-Ray Spectrographic Method) or other method approved in advance by AQD and shall be reported as the sulfur content by percent (%) weight. Analysis shall be maintained on file and made available to AQD upon request.

9. The applicable emission limiting rules shall be as follows:

<u>Pt. No.</u>	<u>Pollutant</u>	<u>¹FAC</u>	<u>²JEPB</u>	<u>Other</u>
08	PM			
	(non-soot blowing)	17-296.702(2)(a)	Rule 2, Part IX	
	(soot blowing)	17-210.700(3)	Rule 2, Part II	
	VE			
	(non-soot blowing)	17-296.702(2)(b)	Rule 2, Part IX	
	(soot blowing)	17-210.700(3)	Rule 2, Part II	

Permittee:
Seminole Kraft Corporation

I.D. Number: 31-16-0067-08
Permit/Certification Number: A016-228451
Date of Issue:
Expiration Date: April 30, 1998

10. The maximum allowable emissions shall be as follows:

<u>Pt. No.</u>	<u>Pollutant</u>	<u>lbs/hr</u>	<u>T/yr</u>	<u>Other</u>	<u>Opacity</u>
08	PM				
	(non-soot blowing)	24.60	94.28	0.1 lb/10 ⁶ Btu	
	(soot blowing)	73.80	40.41	0.3 lb/10 ⁶ Btu	
	VE				
	(non-soot blowing)				20%
	(soot blowing)				60%

11. Operation shall be limited to 8760 hours per year.

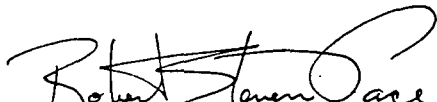
12. The maximum heat input shall be limited to 246 x 10⁶ Btu per hour of No. 6 fuel oil.

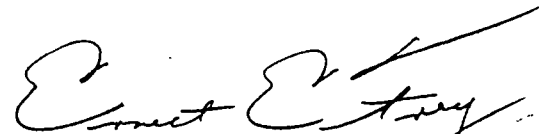
13. The maximum sulfur content of the No. 6 fuel oil shall be limited to 2.27% by weight.

14. The No. 3 Power Boiler shall be permanently shut-down and made incapable of operation and its construction/operation permit(s) surrendered to the Department's Bureau of Air Regulation upon completion of the initial compliance tests on the Cedar Bay Boilers. The Duval County's Air Quality Division shall be specifically informed in writing within thirty days after the shut-down of the No. 3 Power Boiler.

City of Jacksonville
Air Quality Division

State of Florida
Department of Environmental Regulation


Robert S. Pace, P.E., Chief


Ernest E. Frey, P.E., Director of District Management

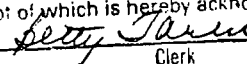
¹Florida Administrative Code

²Jacksonville Environmental Protection Board

RSP/EEF/nic

s:\roberson\permits\skcph3

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to S120.52, Florida
Statutes, with the designated Department Clerk,
receipt of which is hereby acknowledged. 6/16/98


Clerk Date

CERTIFICATION

FACILITY Seminole Kraft Corporation

SOURCE No. 3 Power Boiler

APPLICATION NUMBER A016-228451

I HEREBY CERTIFY that the engineering features described in the referenced application provide reasonable assurance of compliance with the applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Title 17. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).

Richard L. Robinson, P.E.
NAME, P.E.

Richard L. Robinson 6/11/93
Signature and Seal Date



Lawton Chiles
Governor

Florida Department of Environmental Protection

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

Virginia B. Wetherell
Secretary

NOTICE OF PERMIT AMENDMENT

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. John L. West, General Manager
Seminole Kraft Corporation
P.O. Box 26998
Jacksonville, FL 32218-0998

**RE: Duval County - Air Pollution
Seminole Kraft Corporation
No. 3 Power Boiler
Permit No. A016-228451
I.D. No. 31-16-0067-08**

Dear Mr. West:

The City of Jacksonville Regulatory and Environmental Services Department (RES D) Air Quality Division (AQD) and the State of Florida Department of Environmental Protection (DEP) hereby amend the referenced permit as follows:

SPECIFIC CONDITION 14.

FROM: The No. 3 Power Boiler shall be permanently shut-down and made incapable of operation and its construction/operation permit(s) surrendered to the Department's Bureau of Air Regulation upon completion of the initial compliance tests on the Cedar Bay Boilers. The Duval County's Air Quality Division shall be specifically informed in writing within thirty days after the shut-down of the No. 3 Power Boiler.

TO: The No. 3 Power Boiler shall be permanently shut down and made incapable of operation, and SKC shall turn in the operation permit to the Division of Air Resources Management's Bureau of Air Regulation, within thirty days (30) days of written confirmation by DEP of the successful completion of the initial compliance tests on the Cedar Bay Plant's boilers. The Regulatory and Environmental Services Department of Jacksonville shall be specifically informed in writing within thirty (30) days after the shut down of the No. 3 Power Boiler.

**Permit Amendment
No. 3 Power Boiler
Permit No. A016-228451
Page 2**

AQD and DEP amend the referenced permit as authorized by Florida Administrative Code (FAC) Rule 17-4.080 and Section 403.061(14) Florida Statutes (FS). This Notice of Permit Amendment does not modify any other conditions in the referenced permit. All permit conditions are in effect and fully enforceable. Please attach this Notice of Permit Amendment to your copy of the permit.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, 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 at 2600 Blair Stone Road, Tallahassee, Florida 32300-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this Notice. Petitions filed by other persons must be filed with 14 days of this Notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition with this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F. S.

The Petition shall contain the following information:

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

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision for the Department

Best Available Copy

**Permit Amendment
No. 3 Power Boiler
Permit No. AO16-228451
Page 3**

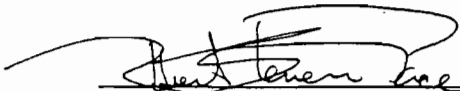
with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this Notice in the Office of General Counsel at the above address of the Department. Failure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

This Notice is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with this paragraph 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 17-103.070, F.A.C. Upon timely filing of a petition or request for an extension of time this Notice will not be effective until further Order of the Department.

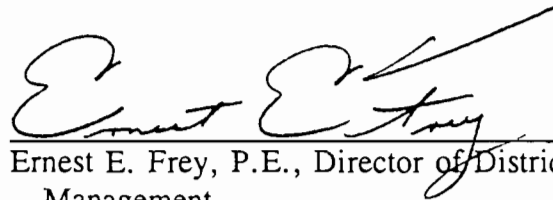
Executed in Jacksonville, Florida.

City of Jacksonville
Regulatory & Environmental Services
Air Quality Division

State of Florida
Department of Environmental Protection



Robert S. Pace, P.E., Chief



Ernest E. Frey, P.E., Director of District Management

Attachment to be Incorporated
Seminole Kraft Corporation letter received June 28, 1993

cc: Air Section - NEDER
AQD File 2155-E
AQD Permitting File

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to §120.57, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged. 7/16/93
Lacey Thomas Clerk Date

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT AMENDMENT and all copies were mailed by certified mail before the close of business on 7-16-93 to the listed persons.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF PERMIT

In the matter of an
Application for Permit by:

DEP File No. AC16-222359
PSD-FL-198
Duval County

Seminole Kraft Corporation
9469 East Port Road
Jacksonville, FL 32229

Enclosed is Permit Number AC16-222359 (PSD-FL-198) to construct three packaged steam boilers at their existing facility in Jacksonville, Duval County, Florida, issued pursuant to Section(s) 403, Florida Statutes.

Any party to this Order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by 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 Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



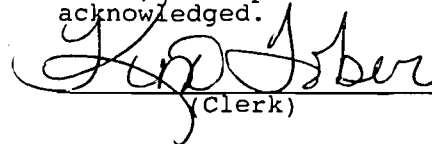
C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on 7-8-93 to the listed persons.

Clerk Stamp

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


(Clerk)

7-8-93
(Date)

- Copies furnished to:
- J. Cole, NED
 - R. Roberson, RESD
 - J. Bunyak, NPS
 - D. Buff, KBN
 - B. Collum, GEPD
 - C. Hurd, SKC
 - R. Donelan, OGC

Final Determination

Seminole Kraft Corporation
Duval County, Florida

Construction Permit No.
AC 16-222359
(PSD-FL-198)

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

July 7, 1993

Final Determination

Seminole Kraft Corporation

AC 16-222359 (PSD-FL-198)

The construction permit application package and supplementary material have been reviewed by the Department. Public Notice of the Department's Intent to Issue was published in The Florida Times-Union on April 25 and May 11, 1993. The original Technical Evaluation and Preliminary Determination (TE&PD) and Revised TE&PD were distributed on April 2 and April 21, respectively, were made available for public inspection at the Department's Northeast District and Bureau of Air Regulation offices and the City of Jacksonville's Regulatory & Environmental Services Department (RESD).

Comments were received from the applicant during the public notice period. The Department's response to the comments are as follows (note: each response is numbered to correspond to each comment) and the change or new language will be in "bold print":

I. Construction Permit No. AC 16-222359 (PSD-FL-198)

A. Mr. Ron L. Roberson's letter received April 20, 1993.

1. The Department agrees with the request and the change will be made. Also, a requirement for calculating actual SO₂ emissions will be established.

Specific Condition No. 7.:

FROM: Before this construction permit expires, the common packaged boiler stack shall be tested and monitored for compliance with the emission limits in Specific Conditions Nos. 4, 5, and 6. Compliance tests for NO_x shall be conducted in accordance with 40 CFR 60.46b(e)(3). Compliance with SO₂ limits shall be in accordance with 40 CFR 60.49b(r). Compliance with visible emission limits shall be demonstrated initially and annually in accordance with EPA Method 9.

TO: Before this construction permit expires, **each packaged boiler** shall be tested and monitored for compliance with the emission limits in Specific Conditions Nos. 4, 5, and 6. Compliance tests for NO_x shall be conducted in accordance with 40 CFR 60.46b(e)(3). Compliance with SO₂ limits shall be in accordance with 40 CFR 60.49b(r); **and, a stoichiometric quantification for SO₂ emissions shall be utilized using the actual density and sulfur weight percent and the quantity of fuel oil fired monthly.** Compliance with visible emission limits shall be demonstrated initially and annually in accordance with EPA Method 9.

Final Determination
July 7, 1993
Page 2

2. Based on a phone conversation with Mr. Roberson (RESA) and Mr. Bruce Mitchell, edits to Specific Conditions Nos. 8, 9 and 11 were pointed out for clarification purposes and the following will be changed:

Specific Condition No. 8.:

FROM: The DER Northeast District office and the RESA (Regulatory and Environmental Services Department) shall be notified at least 15 days prior to the compliance tests. Compliance test results shall be submitted to the DER Northeast District office and the Bureau of Air Regulation office within 45 days after completion of the tests. Sampling facilities, methods, and reporting shall be in accordance with 40 CFR 60.49b, F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A.

TO: The Department's Northeast District office and the RESA (City of Jacksonville's Regulatory and Environmental Services Department) office shall be notified at least 15 days prior to the compliance tests. Compliance test results shall be submitted to the Department's Northeast District and Bureau of Air Regulation offices and the RESA office within 45 days after completion of the tests. Sampling facilities, methods, and reporting shall be in accordance with 40 CFR 60.49b, F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A.

Specific Condition No. 9.:

FROM: The following Seminole Kraft Corporation (SKC) sources shall be permanently shut down and made incapable of operation: the No. 1 PB (power boiler), the No. 2 PB, the No. 3 PB, the No. 1 BB (bark boiler), and the No. 2 BB; and, SKC shall turn in their operation permits to the Division of Air Resources Management's Bureau of Air Regulation, within 30 days of written confirmation by DER of the successful completion of the initial compliance tests on the Cedar Bay Cogeneration Plant's boilers. The Regulatory and Environmental Services Division of Jacksonville shall be specifically informed in writing within thirty days after each individual shut down of the above referenced equipment.

TO: The following Seminole Kraft Corporation (SKC) sources shall be permanently shut down and made incapable of operation: the No. 1 PB (power boiler), the No. 2 PB, the

No. 3 PB, the No. 1 BB (bark boiler), and the No. 2 BB; and, SKC shall turn in their operation permits to the Department's Bureau of Air Regulation, within 30 days of written confirmation by the Department of the successful completion of the initial compliance tests on the Cedar Bay Cogeneration Plant's boilers. The RESD office shall be specifically informed in writing within thirty days after each individual shut down of the above referenced equipment.

Specific Condition No. 11.:

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

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

B. Mr. Brian L. Beals's letter received April 22, 1993.

1. No comments are required because of concurrence.

C. Mr. James W. Pulliam, Jr.'s letter received May 21, 1993.

1. The Department agrees with the request and the condition will be established. Also, an additional requirement for a lab analysis to accompany each fuel oil delivery will be established in order to calculate actual SO₂ emissions. In addition, SKC representatives requested that the Cedar Bay certification language be inserted for notice requirements. Further, the Department agreed during the Cedar Bay certification that the SKC boilers would be allowed to fire both natural gas and No. 2 fuel oil (limited to a maximum

0.05% sulfur, by weight) and having a total emission limitation of 25 tons/year of SO₂; however, circumstances would allow for further approval of an additional 16 tons/year. The following changes/addition should reflect the above points:

Specific Condition No. 4.:

FROM: Sulfur content of the No. 2 fuel oil shall not exceed 0.05 percent by weight. Annual SO₂ emissions, total for all three boilers, shall not exceed 25 tons per year. In the event that the ceiling for SO₂ is expected to be exceeded due to unavailability of natural gas caused by factors beyond the control of SKC, SKC shall notify the Department that it anticipates exceeding the ceiling as provided herein; and, the emissions of SO₂ during the period of such curtailment shall not be counted against the yearly emissions ceiling of 25 tons unless administrative proceedings result in a finding that the exceedance was within SKC's control. In no event shall the total annual emissions of SO₂ from the three steam boilers exceed a ceiling of 41 tons per year.

TO: The three packaged boilers are permitted to fire both natural gas and No. 2 fuel oil, with the primary fuel being natural gas. The sulfur content of the No. 2 fuel oil shall not exceed 0.05 percent, by weight. Any delivery of No. 2 fuel oil shall be accompanied by a laboratory analysis quantifying the density and percent sulfur, by weight. Annual SO₂ emissions from No. 2 fuel oil firing, total all three boilers, shall not exceed 25 tons/year. In the event that the ceiling for SO₂ is expected to be exceeded due to unavailability of natural gas caused by factors beyond the control of SKC, SKC shall notify the Department that it anticipates exceeding the ceiling as provided herein; and, the emissions of SO₂ during the period of such curtailment shall not be counted against the yearly emissions ceiling of 25 tons unless administrative proceedings result in a finding that the exceedance was within SKC's control. In no event shall the total annual emissions of SO₂ from the three steam boilers exceed 41 tons/year. The notice shall include a statement or reasons for the request and supporting documentation, and shall be published by SKC, without supporting documents, in a newspaper of general circulation in Jacksonville, Florida, as defined in Section 403.5115(2), F.S. The filing and publication of the notice no later than 7 days following the date of exceedance, shall preclude any finding of violation by the Department until final disposition of any administrative proceedings.

D. Ms. Jewell A. Harper's letter received June 11, 1993.

1. Based on discussions with Mr. Scott Davis (EPA Region IV) and Mr. Bruce Mitchell, it was deemed acceptable to use the lab analyses of the No. 2 fuel oil deliveries and the actual fuel oil fired per month to stoichiometrically calculate the actual SO₂ emissions in lieu of imposing additional emission limitations, which would require mass emissions stack testing or continuous emission monitoring for verification purposes. Therefore, see Specific Conditions Nos. 4 and 7. Also, for further clarification purposes, the following is established:

Specific Condition No. 12.: (new)

Pursuant to 40 CFR 49b(r), quarterly reports shall be submitted to the RESD office (i.e., Administrator) certifying that only very low sulfur oil (i.e., $\leq 0.05\%$ sulfur, by weight) meeting this definition was combusted in the affected facility during the preceding quarter. The firing of any fuel oil and its associated SO₂ emissions shall be quantified on a monthly and per boiler basis and submitted to the RESD office by the end of the month following the end of each quarter. The quarters are defined as January-March, April-June, July-September, and October-December; also, and per boiler, the final quarterly report shall include the total amount of the fuel oil fired and the quantified associated SO₂ emissions from the year.

II. BACT Determination to Permit No. AC 16-222359 (PSD-FL-198)

Pursuant to C.1. above, the Revised BACT determination will reflect that the boilers are permitted to fire both natural gas and No. 2 fuel oil as contained in Specific Condition No. 4 of the construction permit No. AC 16-222359. The following changes will be made to the text:

A. "BACT Determination by the Department"

FROM: During initial permitting discussions with SKC, the Department of Environmental Protection (Department) indicated to them that BACT would require the use of natural gas as the primary fuel, if available. Subsequently, SKC obtained a natural gas contract. Therefore, the Department's determination of BACT is the use of natural gas as the primary fuel and No. 2 fuel oil (0.05% sulfur max.) as backup when natural gas is not available. Allowable emissions under normal operating conditions (i.e. 380,000 lbs/hr steam supplied by CBCP) are listed below for each boiler along with the limit basis:

<u>Pollutant</u>	<u>Emission Limits</u>	<u>Basis</u>
NO _x	23.6 lbs/hr and 103.4 tons/yr	Subpart D _b (0.2 lb/mm BTU)
SO ₂	25 tons/yr total-3 boilers*	BACT (0.05%S)
VE	Natural Gas - 5% opacity	BACT
VE	No. 2 Fuel Oil - 10% opacity	BACT

* In the event that the ceiling for SO₂ is expected to be exceeded due to unavailability of natural gas caused by factors beyond the control of SKC, SKC shall notify the Department that it anticipates exceeding the ceiling as provided herein; and, the emissions of SO₂ during the period of such curtailment shall not be counted against the yearly emissions ceiling of 25 tons unless administrative proceedings result in a finding that the exceedance was within SKC's control. In no event shall the total annual emissions of SO₂ from the three steam boilers exceed 41 tons per year.

TO: During initial permitting discussions with SKC, the Department of Environmental Protection (Department) indicated to them that BACT would require the use of natural gas as the primary fuel, if available. Subsequently, SKC obtained a natural gas contract. Therefore, the Department's determination of BACT is to allow three packaged steam boilers to fire both natural gas and No. 2 fuel oil (maximum 0.05% sulfur, by weight), with the primary fuel being natural gas. Allowable emissions under normal operating conditions (i.e. 380,000 lbs/hr steam supplied by CBCP) are listed below for each boiler along with the limit basis:

<u>Pollutant</u>	<u>Emission Limits</u>	<u>Basis</u>
NO _x	23.6 lbs/hr and 103.4 tons/yr	Subpart D _b (0.2 lb/mm BTU)
SO ₂	25 tons/yr total-3 boilers*	BACT (\leq 0.05% S, by wt. #2 Fuel Oil)
VE	Natural Gas - 5% opacity	BACT
VE	No. 2 Fuel Oil - 10% opacity	BACT

* In the event that the ceiling for SO₂ is expected to be exceeded due to unavailability of natural gas caused by factors beyond the control of SKC, SKC shall notify the Department that it anticipates exceeding the ceiling as provided herein; and, the emissions of SO₂ during the period of such curtailment shall not be counted against the yearly emissions ceiling of 25 tons unless administrative

proceedings result in a finding that the exceedance was within SKC's control. In no event shall the total annual emissions of SO₂ from the three steam boilers exceed 41 tons/year. The notice shall include a statement or reasons for the request and supporting documentation, and shall be published by SKC, without supporting documents, in a newspaper of general circulation in Jacksonville, Florida, as defined in Section 403.5115(2), Florida Statutes. The filing and publication of the notice no later than 7 days following the date of exceedance, shall preclude any finding of violation by the Department until final disposition of any administrative proceedings.

III. Attachments to be Incorporated:

15. Technical Evaluation and Preliminary Determination (TE&PD) mailed 4/2/93.
16. Mr. Ronald L. Roberson's letter received 4/20/93.
17. Mr. Brian L. Beals's letter received 4/22/93.
18. Revised TE&PD mailed 4/21/93.
19. Public Notice received 5/7/93 (incomplete).
20. Mr. James W. Pulliam, Jr.'s letter received 5/21/93.
21. Public Notice received 5/27/93.
22. Ms. Jewell A. Harper's letter received 6/11/93.
23. Final Determination dated 7/7/93.

Therefore, it is recommended that the construction permit, No. AC 16-222359 (PSD-FL-198), and associated BACT Determination, be issued as drafted, with the above referenced revisions incorporated.

Attachment 16

DEPARTMENT OF REGULATORY & ENVIRONMENTAL SERVICES
Air Quality Division

Patly
For DeLambert
4/24/93



RECEIVED
APR 21 1993
Division of
Resources Management

April 16, 1993

Mr. Preston Lewis
Department of Environmental Regulation
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: Seminole Kraft Corporation
Three (3) Gas Fired Boilers
Permit AC16-222359 PSD-FL-198

Dear Mr. Lewis:

The Air Quality Division (AQD) has received the above referenced permit and offers the following comments for consideration.

The permit draft has established allowable emissions limits for each individual boiler, but Specific Condition 8., which describes testing requirements for demonstration of compliance does not clearly define how compliance will be demonstrated.

Specific Condition 8. Before this construction permit expires, the common packaged boiler stack shall be tested and monitored for compliance with the emission limits in Specific Condition Nos. 4, 5, and 6. Compliance tests for NO_x shall be conducted in accordance with 40 CFR 60.46b(e)(3). Compliance with SO₂ limits shall be in accordance with 40 CFR 60.49b(r). Compliance with visible emission limits shall be demonstrated initially and annually in accordance with EPA Method 9.

AQD questions the intent of the underlined portion of Specific Condition 8. The condition as it currently reads implies that the common stack is to be tested for each pollutant regulated. Previous conditions limiting regulated pollutants do not state any aggregate or total emission limits. For demonstration of compliance, each boiler should be required to demonstrate that the allowable emission limits can be achieved on an individual basis.

AQD suggests that Specific Condition 8. delete the language "the common packaged boiler stack" and replace it with "each packaged boiler", to clearly indicate that each boiler should be tested individually. AQD does not recommend simultaneous testing of the three packaged boilers for any pollutant other than visible emissions.

Please address any questions or comments to me at (904) 630-3666.

Very truly yours,

Ronald L. Roberson
Ronald L. Roberson
Associate Engineer

cc: AQD Permitting File
Mr. Wayne Walker - AQD
421 West Church Street - Suite 412
Jacksonville, Florida 32202-4111



cc: G. Reynolds
B. Mitchell
C. Holladay
E. Brey, NED
G. Harper, EPA
D. Bunyak, NPS
R. Colton, GDMR

Area Code 904/630-3666

Attachment 17



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

RECEIVED

4APT-AEB

APR 19 1993

APR 22 1993

Division of Air
Resources Management

Mr. Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Seminole Kraft Corporation, Duval County
(PSD-FL-198)

Dear Mr. Fancy:

This is to acknowledge receipt of the Technical Evaluation and Preliminary Determination, including the draft Prevention of Significant Deterioration (PSD) permit, for the above referenced facility, by your letter dated March 31, 1993. The existing Seminole Kraft Corporation facility is a 100-percent recycled fiber paper mill. The proposed modification to the existing facility will be the addition of three package boilers, to be fired with fuel oil and natural gas.

Your determination proposes to limit SO₂ emissions through limiting the sulfur content of the distillate fuel oil and to limit beryllium emissions through efficient combustion and the use of ash free and low ash fuels.

We have reviewed the package as submitted and have no adverse comments. Thank you for the opportunity to review and comment on the package. If you have any questions or comments, please contact either Mr. Lew Nagler for modeling/monitoring or Mr. Scott Davis of my staff at (404) 347-5014.

Sincerely yours,

Brian L. Beals, Chief
Source Evaluation Unit
Air Enforcement Branch
Air, Pesticides, and Toxics
Management Division

cc: J. Luyalds
B. Mitchell
C. Halladay
E. Gray, WE Dist.
R. Robinson, DEARD
G. Bunydk, NPS
R. Collom, & DNR

Attachment 20



United States Department of the Interior



FISH AND WILDLIFE SERVICE
75 Spring Street, S.W.
Atlanta, Georgia
30303

May 19, 1993

RECEIVED

MAY 21 1993

Mr. C. H. Fancy
Chief, Bureau of Air Regulation
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Division of Air
Resources Management

Dear Mr. Fancy:

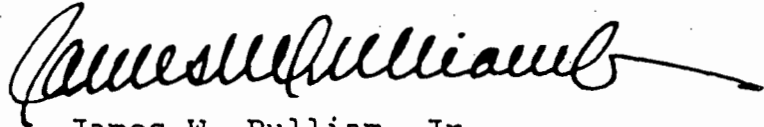
We have reviewed Seminole Kraft Corporation's (SKC) permit application and the State's April 16, 1993, Technical Evaluation and Preliminary Determination and proposed permit conditions for the project. We understand that SKC is proposing to install three packaged steam boilers at their recycled fiber mill facility in Jacksonville, while contemporaneously shutting down several boilers and pulping facilities. As you know, the Jacksonville facility is located approximately 45 km southeast of the Okefenokee Wilderness Area (WA) and 90 km southwest of the Wolf Island WA, both Class I air quality areas administered by the Fish and Wildlife Service.

In their application, SKC proposed firing fuel oil with a maximum sulfur content of 0.5 percent as the primary fuel, with natural gas as the backup fuel. We are pleased to see that SKC has now agreed to fire natural gas as the primary fuel, and use fuel oil with a maximum sulfur content of 0.05 percent as backup. This fuel usage, combined with the emissions credits resulting from the shutdown of old equipment, will result in projected emissions of all pollutants well below the PSD-significant amounts. Based on the currently proposed emissions and the distance to the Class I areas, we do not expect that the SKC project will adversely affect resources in either the Okefenokee or Wolf Island WA's.

We do have one comment regarding the permit conditions contained in the April 16 notice. Although the permitted emission limits are based on SKC firing natural gas as the primary fuel with fuel oil as backup, the proposed permit conditions do not specify this fuel use requirement. We recommend that you include a specific permit condition discussing this requirement in the final permit.

If you have any questions regarding our comments, please contact Sandra Silva of our Air Quality office in Denver at 303/969-2071.

Sincerely yours,



James W. Pulliam, Jr.
Regional Director

cc:

Jewell Harper, Chief
Air Enforcement Branch
Air, Pesticides and Toxic Management Division
U.S. EPA, Region 4
345 Courtland Street, NE.
Atlanta, Georgia 30365

Mr. James A. Heard
Attorney at Law
2902 Independent Square
Jacksonville, Florida 32202

J. Reynolds
D. Mitchell
C. Holladay
G. Cole, AF Dist.
K. Robinson, DEBOD
W. Ruff, KBN
B. Collins, GEPD
C. Hurd, SKC
R. Donelan, OGC
CHF/IB/GPL

Attachment 22



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

RECEIVED

JUN 14 1993

Division of Air
Resources Management

4APT-AEB

JUN - 8 1993

RECEIVED

JUN 11 1993

D.E.R. OFFICE
OF THE SECRETARY

Mr. Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Seminole Kraft Corporation, Duval County (PSD-FL-198)

Dear Mr. Fancy:

This is to acknowledge receipt of the Revised Technical Evaluation and Preliminary Determination, including the draft Prevention of Significant Deterioration (PSD) permit, for the above referenced facility, by your letter dated April 20, 1993. The existing Seminole Kraft Corporation facility is a 100-percent recycled fiber paper mill. The proposed modification to the existing facility will be the addition of three package boilers, to be fired with fuel oil and natural gas.

Your determination proposes to limit SO₂ emissions through limiting the sulfur content of the distillate fuel oil and to limit beryllium emissions through efficient combustion and the use of ash free and low ash fuels.

We have reviewed the package as submitted and have the following comments concerning the draft permit. In Specific Condition 4 of the permit, the emission limit for SO₂ should include a basis for the 25 tons per year limit, in a lb/MMBtu and lbs/hr increment (as established in Specific Condition 3 for NO_x emissions). In addition, we recommend a limit on the gallons of fuel oil used in any 12 consecutive month period, on the basis of 0.05% sulfur content and the maximum annual SO₂ emission limit. For compliance purposes, monthly recordkeeping requirements should be included to enable data to be obtained for fuel oil usage on a 12 month rolling annual average basis.

Thank you for the opportunity to review and comment on the package. If you have any questions or comments, please contact Mr. Scott Davis of my staff at (404) 347-5014.

Sincerely yours,

Jewell A. Harper, Chief
Air Enforcement Branch
Air, Pesticides, and Toxics
Management Division



Florida Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

PERMITTEE:
Seminole Kraft Corporation
9469 East Port Road
Jacksonville, Florida 32229

Permit Number: AC 16-222359
PSD-FL-198
Expiration Date: April 30, 1995
County: Duval
Latitude/Longitude: 30°25'15"N
81°36'00"W
Project: Three Packaged Steam
Boilers

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-210 through 297 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department of Environmental Protection (Department) and made a part hereof and specifically described as follows:

For the construction of three 125,000 lbs/hr packaged process steam boilers. The facility is located at 9469 East Port Road, Jacksonville, Duval County, Florida. UTM coordinates of the site are: Zone 17, 441.8 km E and 3,365.6 km N.

Emissions shall be controlled by using clean fuels and good combustion practices.

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

Attachments are listed below:

1. Letter (with proposed gas contract) from Oertel to Pennington (12/3/92).
2. Letter from KBN to the Department (12/9/92).
3. Letter from Georgia DNR to the Department (12/10/92).
4. Letter from KBN to the Department (12/22/92).
5. Incompleteness letter from the Department to SKC (12/23/92).
6. Letter from KBN to the Department (12/23/92).
7. Second Incompleteness letter from the Department to SKC (1/5/93).
8. Letter from KBN to the Department (1/8/93).
9. Letter from EPA to the Department (1/15/93).
10. Letter from Oertel to the Department (1/19/93).
11. Third Incompleteness letter from the Department to SKC (1/25/93).
12. Letter from Oertel to the Department (1/29/93).
13. Letter from Oertel to the Department (1/29/93).
14. Completeness letter from the Department to SKC (2/10/93).
15. Technical Evaluation and Preliminary Determination (TE&PD) mailed 4/2/93.

PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC 16-222359
PSD-FL-198
Expiration Date: April 30, 1995

Attachments cont.:

16. Mr. Ronald L. Roberson's letter received 4/20/93.
17. Mr. Brian L. Beals's letter received 4/22/93.
18. Revised TE&PD mailed 4/21/93.
19. Public Notice received 5/7/93 (incomplete).
20. Mr. James W. Pulliam, Jr.'s letter received 5/21/93.
21. Public Notice received 5/27/93.
22. Ms. Jewell A. Harper's letter received 6/11/93.
23. Final Determination dated 7/7/93.

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes (F.S.). The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of F.S. and Department rules, unless specifically authorized by an order from the Department.

PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC 16-222359
PSD-FL-198
Expiration Date: April 30, 1995

GENERAL CONDITIONS:

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

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and,
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

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

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

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

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source

PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC 16-222359
PSD-FL-198
Expiration Date: April 30, 1995

GENERAL CONDITIONS:

which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the F.S. or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and F.S. after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by F.S. or Department rules.
11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code (F.A.C.) Rules 17-4.120 and 17-730.300, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
 - (x) Determination of Best Available Control Technology (BACT);
 - (x) Determination of Prevention of Significant Deterioration; and,
 - (x) Compliance with New Source Performance Standards (NSPS).
14. The permittee shall comply with the following:
 - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC 16-222359
PSD-FL-198
Expiration Date: April 30, 1995

c. Records of monitoring information shall include:

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

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

SPECIFIC CONDITIONS:

1. The construction and operation of these sources shall be in accordance with the capacities stated in the Revised Technical Evaluation and Preliminary Determination.
2. The packaged boilers may be operated continuously (8760 hrs/yr).
3. The maximum allowable NOx emissions shall not exceed 0.2 lb/MMBtu, 23.6 lbs/hr, and 103.4 tons/yr per boiler.
4. The three packaged boilers are permitted to fire both natural gas and No. 2 fuel oil, with the primary fuel being natural gas. The sulfur content of the No. 2 fuel oil shall not exceed 0.05 percent, by weight. Any delivery of No. 2 fuel oil shall be accompanied by a laboratory analysis quantifying the density and percent sulfur, by weight. Annual SO₂ emissions from No. 2 fuel oil firing, total all three boilers, shall not exceed 25 tons/year. In the event that the ceiling for SO₂ is expected to be exceeded due to unavailability of natural gas caused by factors beyond the control of SKC, SKC shall notify the Department that it anticipates exceeding the ceiling as provided herein; and, the emissions of SO₂ during the period of such curtailment shall not be counted against the yearly emissions ceiling of 25 tons unless administrative proceedings result in a finding that the exceedance was within SKC's control. In no event shall the total annual emissions of SO₂ from the three steam boilers exceed 41 tons/year. The notice shall include a statement or reasons for the request and supporting documentation, and shall be published by SKC, without supporting documents, in a newspaper of general circulation in Jacksonville,

PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC 16-222359
PSD-FL-198
Expiration Date: April 30, 1995

SPECIFIC CONDITIONS:

Florida, as defined in Section 403.5115(2), F.S. The filing and publication of the notice no later than 7 days following the date of exceedance, shall preclude any finding of violation by the Department until final disposition of any administrative proceedings.

5. Visible emissions (VE) shall not exceed 5% opacity during natural gas firing and 10% opacity during fuel oil firing.

6. In accordance with requirements of 40 CFR 60.48(b), a monitoring system (CEMS) for nitrogen oxides shall be installed, operated, and maintained. Also, the natural gas, fuel oil and steam flows (both from the packaged boilers and from the CBCP facility) shall be metered and continuously recorded. The data shall be logged daily and maintained so that it can be provided to the Department upon request.

7. Before this construction permit expires, each packaged boiler shall be tested and monitored for compliance with the emission limits in Specific Conditions No. 4, 5, and 6. Compliance tests for NOx shall be conducted in accordance with 40 CFR 60.46b(e)(3). Compliance with SO₂ limits shall be in accordance with 40 CFR 60.49b(r); and, a stoichiometric quantification for SO₂ emissions shall be utilized using the actual density and sulfur weight percent and the quantity of fuel oil fired monthly. Compliance with visible emission limits shall be demonstrated initially and annually in accordance with EPA Method 9.

8. The Department's Northeast District office and the RESD (City of Jacksonville's Regulatory and Environmental Services Department) office shall be notified at least 15 days prior to the compliance tests. Compliance test results shall be submitted to the Department's Northeast District and Bureau of Air Regulation offices and the RESD office within 45 days after completion of the tests. Sampling facilities, methods, and reporting shall be in accordance with 40 CFR 60.49b, F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A.

9. The following Seminole Kraft Corporation (SKC) sources shall be permanently shut down and made incapable of operation: the No. 1 PB (power boiler), the No. 2 PB, the No. 3 PB, the No. 1 BB (bark boiler), and the No. 2 BB; and, SKC shall turn in their operation permits to the Department's Bureau of Air Regulation, within 30 days of written confirmation by the Department of the successful completion of the initial compliance tests on the Cedar Bay Cogeneration Plant's boilers. The RESD office shall be specifically informed in writing within thirty days after each individual shut down of the above referenced equipment.

PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC 16-222359
PSD-FL-198
Expiration Date: April 30, 1995

SPECIFIC CONDITIONS:

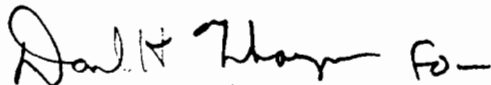
10. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

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

12. Pursuant to 40 CFR 49b(r), quarterly reports shall be submitted to the RESD office (i.e., Administrator) certifying that only very low sulfur oil (i.e., $\leq 0.05\%$ sulfur, by weight) meeting this definition was combusted in the affected facility during the preceding quarter. The firing of any fuel oil and its associated SO₂ emissions shall be quantified on a monthly and per boiler basis and submitted to the RESD office by the end of the month following the end of each quarter. The quarters are defined as January-March, April-June, July-September, and October-December; also, and per boiler, the final quarterly report shall include the total amount of the fuel oil fired and the quantified associated SO₂ emissions from the year.

Issued this 7th day
of July, 1993

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION


Virginia B. Wetherell, Secretary

Revised Best Available Control Technology (BACT) Determination
Seminole Kraft Corporation
Duval County
PSD-FL-198
AC 16-222359

The applicant proposes to install three packaged boilers at their recycled fiber paper mill facility in Jacksonville, Duval County, Florida. Each of the three boilers will be sized to provide up to 125,000 lbs/hr of process steam for Seminole Kraft Corporation's (SKC) paper machines. SKC will also receive process steam from the adjacent Cedar Bay Cogeneration Project (CBCP). According to terms of the CBCP Site Certification proceedings, SKC is to be limited to a total steam production of 640,000 lbs/hr which includes 380,000 lbs/hr imported from the CBCP facility. This leaves 260,000 lbs/hr to be produced by the three packaged boilers under normal operating conditions. During periods when CBCP is not operating or operating at reduced rates, SKC will be allowed to make up the difference between the 380,000 lbs/hr and the steam production level that CBCP provides. This is equivalent to a maximum firing rate of 524 MMBTU/hr for all three SKC packaged boilers when the CBCP facility is down.

Date of Receipt of a Complete Application

February 10, 1993

BACT Determination Requested by Applicant

SKC's application called for the firing of fuel oil on a full time or as needed basis since a firm natural gas contract had not been obtained at the time of filing. Consequently, the application required a BACT determination for SO₂ and beryllium since these pollutants would be emitted in amounts exceeding PSD-significant levels. BACT was proposed by the applicant as firing fuel oil with a 0.5 percent maximum sulfur content (0.3 average). Since there are no specific control technologies for beryllium, an uncontrolled beryllium emission level was proposed.

BACT Determination by the Department

During initial permitting discussions with SKC, the Department of Environmental Protection (Department) indicated to them that BACT would require the use of natural gas as the primary fuel, if available. Subsequently, SKC obtained a natural gas contract.

Revised BACT
Seminole Kraft Corp.
Page Two

Therefore, the Department's determination of BACT is three packaged steam boilers being allowed to fire both natural gas and No. 2 fuel oil (maximum 0.05% sulfur, by weight), with the primary fuel being natural gas. Allowable emissions under normal operating conditions (i.e. 380,000 lbs/hr steam supplied by CBCP) are listed below for each boiler along with the limit basis:

<u>Pollutant</u>	<u>Emission Limits</u>	<u>Basis</u>
NO _x	23.6 lbs/hr and 103.4 tons/yr	Subpart D _b (0.2 lb/mm BTU)
SO ₂	25 tons/yr total-3 boilers*	BACT (≤0.05% S, by wt. #2 Fuel Oil)
VE	Natural Gas - 5% opacity	BACT
VE	No. 2 Fuel Oil - 10% opacity	BACT

* In the event that the ceiling for SO₂ is expected to be exceeded due to unavailability of natural gas caused by factors beyond the control of SKC, SKC shall notify the Department that it anticipates exceeding the ceiling as provided herein; and, the emissions of SO₂ during the period of such curtailment shall not be counted against the yearly emissions ceiling of 25 tons unless administrative proceedings result in a finding that the exceedance was within SKC's control. In no event shall the total annual emissions of SO₂ from the three steam boilers exceed 41 tons/year. The notice shall include a statement or reasons for the request and supporting documentation, and shall be published by SKC, without supporting documents, in a newspaper of general circulation in Jacksonville, Florida, as defined in Section 403.5115(2), Florida Statutes. The filing and publication of the notice no later than 7 days following the date of exceedance, shall preclude any finding of violation by the Department until final disposition of any administrative proceedings.

BACT Determination Procedure

In accordance with Florida Administrative Code (F.A.C.) Rules 17-210 through 297, this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department, on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available control methods, systems and techniques. In addition, the regulations require that in making the BACT determination the Department shall give consideration to:

- (a) Any Environmental Protection Agency determination of BACT pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).
- (b) All scientific, engineering and technical material and other information available to the Department.
- (c) The emission limiting standards or BACT determinations of any other State.
- (d) The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine for the emission source in question the most stringent control available for a similar or identical source or source category. If it is shown that this level of control is technically or economically infeasible for the source in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

BACT Determination Rationale

BACT review for particulate emissions and sulfur-dioxide are required under F.A.C. Rule 17-296.406. Visible emissions may be regulated as a surrogate parameter for PM/PM₁₀ and have been established at 5% opacity for natural gas fired boilers (10% opacity for No. 2 fuel oil).

For SO₂ emissions from oil firing, only two alternatives exist that would result in stringent SO₂ emissions; using low sulfur content fuel oil or flue gas desulfurization (FGD). EPA has recognized that FGD technology is inappropriate to apply to these combustion units. Sludge would be generated that would have to be disposed of properly, and there would be greatly increased costs associated with the construction and operation of a FGD system. Finally, there is no information in the literature to indicate that FGD has ever been applied to burning distillate oil. This leaves the use of natural gas and low sulfur fuel oil as backup as the best option for this project. Due to the anticipated availability of very low sulfur oil by October 1993, the Department will require the use of No. 2 fuel oil with 0.05% sulfur by weight as BACT.

Revised BACT
Seminole Kraft Corp.
Page Four

Details of the Analysis May be Obtained by Contacting:

Preston Lewis, P.E., BACT Coordinator
Department of Environmental Protection
Bureau of Air Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended by:



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

July 7 1993
Date

Approved by:



Virginia B. Wetherell, Secretary
Dept. of Environmental Protection

7 July 1993
Date

is your RETURN ADDRESS completed on the reverse side

Complete items 1 and/or 2 for additional services.
 Complete items 3 and 4a & b.
 Print your name and address on the reverse of this form so that we can return this card to you.
 Attach this form to the front of the mailpiece, or on the back if space does not permit.
 Write "Return Receipt Requested" on the mailpiece below the article number.
 The Return Receipt will show to whom the article was delivered and the date delivered.

1 Addressee's Address
 2 Restricted Delivery
 Consult postmaster for fee.

3 Article Addressed to:
 G. A. Stanley, Gen Mgr
 Seminole Kraft Corp
 9409 E Post Rd
 Jacksonville, FL
 32229

4a Article Number
 P 230 524 368

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

7 Date of Delivery
 7-13-93

5 Signature (Addressee)

6 Signature (Agent)
 [Signature]

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

Thank you for using Return Receipt Service

PS Form 3811, December 1991 U.S. GPO: 1992-323-402

DOMESTIC RETURN RECEIPT

P 230 524 368



Receipt for Certified Mail

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

PS Form 3800, June 1991

Sender
 Seminole Kraft

Street and No.
 Jacksonville, FL

City, State and ZIP Code
 Jacksonville, FL 32229

Postage \$

Certified Fee

Special Delivery Fee

Restricted Delivery Fee

Return Receipt Showing to Whom & Date Delivered

Return Receipt Showing to Whom, Date, and Addressee's Address

TOTAL Postage & Fees \$

Postmark or Date
 AC 16-222359
 PSD-FI-198
 7-8-93



Florida Department of Environmental Protection

DRAFT

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

PERMITTEE:
Seminole Kraft Corp.
9469 East Port Road
Jacksonville, Florida 32229

Permit Number: AC16-222359
PSD-FL-198
Expiration Date: April 30, 1995
County: Duval
Latitude/Longitude: 30°25'15"N
81°36'00"W
Project: Three Packaged Steam
Boilers

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

For the construction of three 125,000 lbs/hr packaged process steam boilers. The facility is located at 9469 East Port Road, Jacksonville, Duval County, Florida. UTM coordinates of the site are: Zone 17, 441.8 km E and 3,365.6 km N.

Emissions shall be controlled by using clean fuels and good combustion practices.

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

Attachments are listed below:

1. Letter (with proposed gas contract) from Oertel to Pennington (12/3/92).
2. Letter from KBN to DER (12/9/92).
3. Letter from Georgia DNR to DER (12/10/92).
4. Letter from KBN to DER (12/22/92).
5. Incompleteness letter from DER to SKC (12/23/92).
6. Letter from KBN to DER (12/23/92).
7. Second Incompleteness letter from DER to SKC (1/5/93).
8. Letter from KBN to DER (1/8/93).
9. Letter from EPA to DER (1/15/93).
10. Letter from Oertel to DER (1/19/93).
11. Third Incompleteness letter from DER to SKC (1/25/93).
12. Letter from Oertel to DER (1/29/93).
13. Letter from Oertel to DER (1/29/93).
14. Completeness letter from DER to SKC (2/10/93).
15. Technical Evaluation and Preliminary Determination (TE&PD) mailed 4/2/93.
16. Mr. Ronald L. Roberson's letter received 4/20/93.
17. Mr. Brian L. Beals's letter received 4/22/93.

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PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC16-222359
PSD-FL-198
Expiration Date: April 30, 1995

Attachments cont.:

18. Revised TE&PD mailed 4/21/93.
19. Public Notice received 5/7/93 (incomplete).
20. Mr. James W. Pulliam, Jr.'s letter received 5/21/93.
21. Public Notice received 5/27/93.
22. Ms. Jewell A. Harper's letter received 6/11/93.
23. Final Determination dated 7/7/93.

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes (F.S.). The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of F.S. and Department rules, unless specifically authorized by an order from the Department.

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PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC16-222359
PSD-FL-198
Expiration Date: April 30, 1995

GENERAL CONDITIONS:

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

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and,
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

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

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

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

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source

DRAFT

PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC16-222359
PSD-FL-198
Expiration Date: April 30, 1995

GENERAL CONDITIONS:

which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the F.S. or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

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

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

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

13. This permit also constitutes:

- (x) Determination of Best Available Control Technology (BACT);
- (x) Determination of Prevention of Significant Deterioration; and,
- (x) Compliance with New Source Performance Standards (NSPS).

14. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC16-222359
PSD-FL-198
Expiration Date: April 30, 1995

c. Records of monitoring information shall include:

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

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

SPECIFIC CONDITIONS:

1. The construction and operation of these sources shall be in accordance with the capacities stated in the Revised Technical Evaluation and Preliminary Determination.

2. The packaged boilers may be operated continuously (8760 hrs/yr).

3. The maximum allowable NOx emissions shall not exceed 0.2 lb/MMBtu, 23.6 lbs/hr, and 103.4 tons/yr per boiler.

4. **The three packaged boilers are permitted to fire both natural gas and No. 2 fuel oil, with the primary fuel being natural gas. The sulfur content of the No. 2 fuel oil shall not exceed 0.05 percent, by weight. Any delivery of No. 2 fuel oil shall be accompanied by a laboratory analysis quantifying the density and percent sulfur, by weight. Annual SO₂ emissions from No. 2 fuel oil firing, total all three boilers, shall not exceed 25 tons/year. In the event that the ceiling for SO₂ is expected to be exceeded due to unavailability of natural gas caused by factors beyond the control of SKC, SKC shall notify the Department that it anticipates exceeding the ceiling as provided herein; and, the emissions of SO₂ during the period of such curtailment shall not be counted against the yearly emissions ceiling of 25 tons unless administrative proceedings result in a finding that the exceedance was within SKC's control. In no event shall the total annual emissions of SO₂ from the three steam boilers exceed 41 tons/year. The notice shall include a statement or reasons for the request and supporting documentation, and shall be published by SKC, without supporting documents, in a newspaper of general circulation in Jacksonville,**

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PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC16-222359
PSD-FL-198
Expiration Date: April 30, 1995

SPECIFIC CONDITIONS:

Florida, as defined in Section 403.5115(2), F.S. The filing and publication of the notice no later than 7 days following the date of exceedance, shall preclude any finding of violation by DEP until final disposition of any administrative proceedings.

5. Visible emissions (VE) shall not exceed 5% opacity during natural gas firing and 10% opacity during fuel oil firing.

6. In accordance with requirements of 40 CFR 60.48(b), a monitoring system (CEMS) for nitrogen oxides shall be installed, operated, and maintained. Also, the natural gas, fuel oil and steam flows (both from the packaged boilers and from the CBCP facility) shall be metered and continuously recorded. The data shall be logged daily and maintained so that it can be provided to DER upon request.

7. Before this construction permit expires, **each packaged boiler** shall be tested and monitored for compliance with the emission limits in Specific Conditions No. 4, 5, and 6. Compliance tests for NO_x shall be conducted in accordance with 40 CFR 60.46b(e)(3). Compliance with SO₂ limits shall be in accordance with 40 CFR 60.49b(r); **and, a stoichiometric quantification for SO₂ emissions shall be utilized using the actual density and sulfur weight percent and the quantity of fuel oil fired monthly.** Compliance with visible emission limits shall be demonstrated initially and annually in accordance with EPA Method 9.

8. The DER's Northeast District office and the RESD (Regulatory and Environmental Services Department) **office** shall be notified at least 15 days prior to the compliance tests. Compliance test results shall be submitted to the DER's Northeast District and Bureau of Air Regulation offices **and the RESD office** within 45 days after completion of the tests. Sampling facilities, methods, and reporting shall be in accordance with 40 CFR 60.49b, F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A.

9. The following Seminole Kraft Corporation (SKC) sources shall be permanently shut down and made incapable of operation: the No. 1 PB (power boiler), the No. 2 PB, the No. 3 PB, the No. 1 BB (bark boiler), and the No. 2 BB; and, SKC shall turn in their operation permits to the Division of Air Resources Management's Bureau of Air Regulation, within 30 days of written confirmation by DER of the successful completion of the initial compliance tests on the Cedar Bay Cogeneration Plant's boilers. The **RESD office** shall be specifically informed in writing within thirty days after each individual shut down of the above referenced equipment.

DRAFT

PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC16-222359
PSD-FL-198
Expiration Date: April 30, 1995

SPECIFIC CONDITIONS:

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

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

12. Pursuant to 40 CFR 49b(r), quarterly reports shall be submitted to the RESD office (i.e., Administrator) certifying that only very low sulfur oil (i.e., $\leq 0.05\%$ sulfur, by weight) meeting this definition was combusted in the affected facility during the preceeding quarter. The firing of any fuel oil and its associated SO₂ emissions shall be quantified on a monthly and per boiler basis and submitted to the RESD office by the end of the month following the end of each quarter. The quarters are defined as January-March, April-June, July-September, and October-December; also, and per boiler, the final quarterly report shall include the total amount of the fuel oil fired and the quantified associated SO₂ emissions from the year.

Issued this _____ day
of _____, 1993

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Protection

Virginia B. Wetherell, Secretary

- (a) Any Environmental Protection Agency determination of Best Available Control Technology pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).
- (b) All scientific, engineering and technical material and other information available to the Department.
- (c) The emission limiting standards or BACT determinations of any other State.
- (d) The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine for the emission source in question the most stringent control available for a similar or identical source or source category. If it is shown that this level of control is technically or economically infeasible for the source in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

BACT Determination Rationale

BACT review for particulate emissions and sulfur-dioxide are required under F.A.C. Rule 17-296.406. Visible emissions may be regulated as a surrogate parameter for PM/PM₁₀ and have been established at 5% opacity for natural gas fired boilers (10% opacity for No. 2 fuel oil).

For SO₂ emissions from oil firing, only two alternatives exist that would result in stringent SO₂ emissions; using low sulfur content fuel oil or flue gas desulfurization (FGD). EPA has recognized that FGD technology is inappropriate to apply to these combustion units. Sludge would be generated that would have to be disposed of properly, and there would be greatly increased costs associated with the construction and operation of a FGD system. Finally, there is no information in the literature to indicate that FGD has ever been applied to burning distillate oil. This leaves the use of natural gas and low sulfur fuel oil as backup as the best option for this project. Due to the anticipated availability of very low sulfur oil by October 1993, the Department will require the use of No. 2 fuel oil with 0.05% sulfur by weight as BACT.

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Revised Best Available Control Technology (BACT) Determination
Seminole Kraft Corporation
Duval County
PSD-FL-198
AC16-222359

The applicant proposes to install three packaged boilers at their recycled fiber paper mill facility in Jacksonville, Duval County, Florida. Each of the three boilers will be sized to provide up to 125,000 lbs/hr of process steam for Seminole Kraft Corporation's (SKC) paper machines. SKC will also receive process steam from the adjacent Cedar Bay Cogeneration Project (CBCP). According to terms of the CBCP Site Certification proceedings, SKC is to be limited to a total steam production of 640,000 lbs/hr which includes 380,000 lbs/hr imported from the CBCP facility. This leaves 260,000 lbs/hr to be produced by the three packaged boilers under normal operating conditions. During periods when CBCP is not operating or operating at reduced rates, SKC will be allowed to make up the difference between the 380,000 lbs/hr and the steam production level that CBCP provides. This is equivalent to a maximum firing rate of 524 MMBTU/hr for all three SKC packaged boilers when the CBCP facility is down.

Date of Receipt of a Complete Application

February 10, 1993

BACT Determination Requested by Applicant

SKC's application called for the firing of fuel oil on a full time or as needed basis since a firm natural gas contract had not been obtained at the time of filing. Consequently, the application required a BACT determination for SO₂ and beryllium since these pollutants would be emitted in amounts exceeding PSD-significant levels. BACT was proposed by the applicant as firing fuel oil with a 0.5 percent maximum sulfur content (0.3 average). Since there are no specific control technologies for beryllium, an uncontrolled beryllium emission level was proposed.

BACT Determination by the Department

During initial permitting discussions with SKC, the Department indicated to them that BACT would require the use of natural gas as the primary fuel, if available. Subsequently, SKC obtained a natural gas contract. Therefore, the Department's determination of

DRAFT

Revised BACT
Seminole Kraft Corp.
Page Two

BACT is three packaged steam boilers being allowed to fire both natural gas and No. 2 fuel oil (maximum 0.05% sulfur, by weight), with the primary fuel being natural gas. Allowable emissions under normal operating conditions (i.e. 380,000 lbs/hr steam supplied by CBCP) are listed below for each boiler along with the limit basis:

<u>Pollutant</u>	<u>Emission Limits</u>	<u>Basis</u>
NO _x	23.6 lbs/hr and 103.4 tons/yr	Subpart D _b (0.2 lb/mm BTU)
SO ₂	25 tons/yr total-3 boilers*	BACT (<0.05% S, by wt. #2 Fuel Oil)
VE	Natural Gas - 5% opacity	BACT
VE	No. 2 Fuel Oil - 10% opacity	BACT

* In the event that the ceiling for SO₂ is expected to be exceeded due to unavailability of natural gas caused by factors beyond the control of SKC, SKC shall notify the Department that it anticipates exceeding the ceiling as provided herein; and, the emissions of SO₂ during the period of such curtailment shall not be counted against the yearly emissions ceiling of 25 tons unless administrative proceedings result in a finding that the exceedance was within SKC's control. In no event shall the total annual emissions of SO₂ from the three steam boilers exceed 41 tons/year. The notice shall include a statement or reasons for the request and supporting documentation, and shall be published by SKC, without supporting documents, in a newspaper of general circulation in Jacksonville, Florida, as defined in Section 403.5115(2), Florida Statutes. The filing and publication of the notice no later than 7 days following the date of exceedance, shall preclude any finding of violation by DEP until final disposition of any administrative proceedings.

BACT Determination Procedure

In accordance with F.A.C. Rules 17-210 through 297, this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department, on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available control methods, systems and techniques. In addition, the regulations require that in making the BACT determination the Department shall give consideration to:

DRAFT

Revised BACT
Seminole Kraft Corp.
Page Three

- (a) Any Environmental Protection Agency determination of Best Available Control Technology pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).
- (b) All scientific, engineering and technical material and other information available to the Department.
- (c) The emission limiting standards or BACT determinations of any other State.
- (d) The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine for the emission source in question the most stringent control available for a similar or identical source or source category. If it is shown that this level of control is technically or economically infeasible for the source in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

BACT Determination Rationale

BACT review for particulate emissions and sulfur-dioxide are required under F.A.C. Rule 17-296.406. Visible emissions may be regulated as a surrogate parameter for PM/PM₁₀ and have been established at 5% opacity for natural gas fired boilers (10% opacity for No. 2 fuel oil).

For SO₂ emissions from oil firing, only two alternatives exist that would result in stringent SO₂ emissions; using low sulfur content fuel oil or flue gas desulfurization (FGD). EPA has recognized that FGD technology is inappropriate to apply to these combustion units. Sludge would be generated that would have to be disposed of properly, and there would be greatly increased costs associated with the construction and operation of a FGD system. Finally, there is no information in the literature to indicate that FGD has ever been applied to burning distillate oil. This leaves the use of natural gas and low sulfur fuel oil as backup as the best option for this project. Due to the anticipated availability of very low sulfur oil by October 1993, the Department will require the use of No. 2 fuel oil with 0.05% sulfur by weight as BACT. ✓

DRAFT

Revised BACT
Seminole Kraft Corp.
Page Four

Details of the Analysis May be Obtained by Contacting:

Preston Lewis, P.E., BACT Coordinator
Department of Environmental Regulation *Protection*
Bureau of Air Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended by:

Approved by:

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

Virginia B. Wetherell, Secretary
Dept. of Environmental Regulation *Protection*

Date 1993

Date 1993

Rip Collean,

7-6

wants to look at Nete,

Clair

7:30 AM - Thanks Clair: will
contact SK and get back to you this AM.
Please hold til then. (Type noted on 1

OERTEL, HOFFMAN, FERNANDEZ & COLE, P. A.

ATTORNEYS AT LAW

M. CHRISTOPHER BRYANT
R. L. CALEEN, JR.
C. ANTHONY CLEVELAND
TERRY COLE
ROBERT C. DOWNIE, II
SEGUNDO J. FERNANDEZ
KENNETH F. HOFFMAN
KENNETH G. OERTEL
PATRICIA A. RENOVTCH
SCOTT SHIRLEY
THOMAS G. TOMASELLO
W. DAVID WATKINS

SUITE C
2700 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301

MAILING ADDRESS:
POST OFFICE BOX 6507
TALLAHASSEE, FLORIDA 32314-6507

TELEPHONE (904) 877-0099
FACSIMILE (904) 877-0981

NORMAN H. HORTON, JR.
OF COUNSEL

JOHN H. MILLICAN
ENVIRONMENTAL CONSULTANT
(NOT A MEMBER OF THE FLORIDA BAR)

J. P. SUBRAMANI, Ph. D., P. E.
ENVIRONMENTAL CONSULTANT
(NOT A MEMBER OF THE FLORIDA BAR)

June 25, 1993

RECEIVED

JUN 25 1993

Division of Air
Resources Management

HAND DELIVERY

Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of Environmental Regulation
111 South Magnolia Avenue
Tallahassee, FL 32301

Re: Seminole Kraft Corporation Package Boiler PSD Permit

Dear Clair:

Thank you for taking the time to talk with me today regarding the Seminole Kraft PSD permit. This is to confirm our agreement regarding final revisions to the permit. My comments will refer to the permit draft received by me on June 23, 1993.

The Department has agreed to delete the following first sentence of Specific Condition No. 4 on page 5 of 7 of the permit: "The Department's determination of BACT is the use of natural gas as the primary fuel and No. 2 fuel oil as backup when natural gas is not available." In addition, the Department has agreed to delete the following phrase from the beginning of the fourth sentence of Specific Condition No. 4, on page 5 of 7 of the permit: "During natural gas curtailment"

As per our agreement, there will be no further revisions to Specific Condition No. 7 on page 6 of 7 of the permit.

Finally, the Department has agreed to delete the last sentence of Specific Condition No. 12 on page 7 of 7, which currently reads: "Also, a written report shall be submitted to the RESD office within five calendar days of any natural gas curtailment and the date(s) that fuel oil firing began." The above sentence is to be replaced with the notice requirement as it appears in the Cedar Bay Site Certification Condition No. II.E.2. and 3., as indicated on the attached copy of page 12 of the Final Conditions of Certification.

Clair H. Fancy, P.E., Chief
June 25, 1993
Page 2

We appreciate the Department's willingness to resolve these matters so expeditiously. If your understanding regarding is different than my own, please contact me.

Very truly yours,



Scott Shifley

SS:cjb/

cc: Bruce Mitchell
Howard Rhodes
Richard Donelan
John West
Craig Hurd
Mike Riddle
David Buff
Allen Koleff
Curt Barton

E. SK Steam Boiler Emissions

1. This certification and any individual air permits issued by the Department subsequent to the final order of the Board certifying the power plant site under Section 403.509, F.S., shall incorporate the following limitations on the total tonnage of the specified criteria pollutants allowed to be emitted annually by any natural gas-fired boiler or combination of boilers constructed and operated by SK to provide up to 375,000 lbs/hr of steam for use in its recycled paper process:

Tons Per Year

CO	553
NO _x	310
SO ₂	25, except as provided in (2) below

2. In the event that the ceiling for SO₂ is expected to be exceeded due to unavailability of natural gas caused by factors beyond the control of SK, SK may notify the Department that it must exceed the ceiling as provided herein; and emissions of SO₂ during the period of such curtailment shall not be counted against the yearly emissions ceiling of 25 tons unless administrative proceedings result in a finding that the exceedance was within Seminole Kraft's control. In no event shall the annual emissions of SO₂ from the steam boilers referenced above exceed a ceiling of 41 tons per year.

3. The notice shall include a statement or reasons for the request and supporting documentation, and shall be published by SK, without supporting documents, in a newspaper of general circulation in Jacksonville, as defined in Section 403.5115(2), F.S. The filing and publication of the notice no later than 7 days following the date of exceedance, shall preclude any finding of violation by DEP until final disposition of any administrative proceedings.

OERTEL, HOFFMAN, FERNANDEZ & COLE, P. A.

ATTORNEYS AT LAW

M. CHRISTOPHER BRYANT
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KENNETH F. HOFFMAN
KENNETH G. OERTEL
PATRICIA A. RENOVITCH
SCOTT SHIRLEY
THOMAS G. TOMASELLO
W. DAVID WATKINS

SUITE C
2700 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301

MAILING ADDRESS:
POST OFFICE BOX 6507
TALLAHASSEE, FLORIDA 32314-6507

TELEPHONE (904) 877-0099
FACSIMILE (904) 877-0981

NORMAN H. HORTON, JR.
OF COUNSEL

JOHN H. MILLICAN
ENVIRONMENTAL CONSULTANT
(NOT A MEMBER OF THE FLORIDA BAR)

J. P. SUBRAMANI, PH. D., P. E.
ENVIRONMENTAL CONSULTANT
(NOT A MEMBER OF THE FLORIDA BAR)

June 24, 1993

RECEIVED

JUN 24 1993

Division of Air
Resources Management

Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of Environmental Regulation
111 South Magnolia Avenue
Tallahassee, FL 32301

Re: Seminole Kraft Corporation Package Boiler PSD Permit

Dear Clair:

I appreciate your providing my clients an opportunity to review the latest draft (undated, received on June 23, 1993) of the Seminole Kraft Corporation package boiler PSD permit. The following are our comments respecting the permit draft.

A new sentence has been added to the beginning of Specific Condition No. 4 on page 5 of 7, as follows: "[t]he Department's determination of BACT is the use of natural gas as the primary fuel and No. 2 fuel oil as backup when natural gas is not available." Also in Specific Condition No. 4, the words "during natural gas curtailment" were added to the beginning of the fourth sentence. We believe that the effect of the above revisions will impair the flexibility of the mill's use of very low sulphur oil (0.05% sulphur or less) in the proposed package boilers in a manner which is inconsistent with our previous agreement.

As you are aware, the final SO₂ limits in tons per year in this permit, when offsets from existing facilities are considered, are well below the applicable significance level. As a consequence, Seminole Kraft felt that the final project should not have been required to undergo PSD review for SO₂ in the first instance. Part of Seminole Kraft's bargain with the Department was that in return for agreeing to take a permit with such a low annual SO₂ limit, the permit itself would allow maximum operating flexibility with the use of very low sulphur oil within these established parameters.

Although it is not entirely clear, it appears that the draft permit would allow use of the very low sulphur oil only during periods of actual curtailment of natural gas (a total shutdown by the gas supplier). This may arguably preclude use of oil in the third package boiler during the initial 48-hour non-firm gas contract notification period. In addition, because of cost

Clair H. Fancy, P.E., Chief
June 24, 1993
Page 2

constraints, Seminole Kraft has not contracted firm and non-firm gas for 100% of the capacity of all three boilers. Operational situations may arise which require 100% utilization of all three boilers. During such periods, the third boiler would be required to utilize additional very low sulphur oil (0.05% sulphur or less).

I suspect that the language referenced above may have been included as a result of the United States Department of the Interior, Fish and Wildlife Service (FWS), comments received by the Division of Air Resources Management on May 21, 1993. The FWS comments were that the proposed emissions were not expected to "adversely affect" resources in either the Okefenokee or Wolf Island WA's. In addition, FWS recommended inclusion of a specific permit condition discussing the firing of natural gas as the primary fuel with fuel oil as backup. We made no response to the FWS request because we felt that the Department would understand, as we did, that the concept of natural gas as the primary fuel and very low sulphur as backup in this permit was already fully addressed by the severe limitation on annual emissions of sulphur dioxide. We sincerely hope that the Department did not interpret our silence as agreement that the FWS comment was correct.

The last sentence of Specific Condition 12 on page 7 of 7 appears to impose a new stringent reporting requirement respecting fuel oil usage. The power plant site certification already imposes on the mill a very detailed reporting requirement in those instances where the 25-ton per year SO₂ cap must be exceeded (up to 41 TPY) due to "forces beyond the control of SK". Thus, the reporting suggested in the last sentence of Condition 12 is unnecessary and unreasonable. Moreover, this type of reporting of natural gas curtailments and fuel oil firing clearly appears to be connected to the additional language proposed to be included in Specific Condition No. 4 which is objected to above. In our view, all of the preceding comments concerning Specific Condition No. 4 apply here as well.

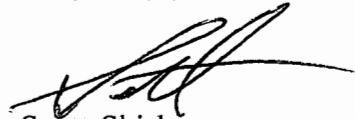
Finally, specific Condition No. 7 on page 5 of 6 has been modified to require NO_x compliance testing on each package boiler stack instead of the "common" stack in the previous permit draft. Requiring testing as to each separate stack is much more expensive than with a single common stack. In view of the fact that these units will only burn natural gas and very low sulphur oil, my clients feel that this new requirement is unnecessary and constitutes overkill.

We respectfully request that the draft permit be further revised to eliminate the provisions discussed in this letter. I look forward to meeting with you in the near future to discuss this matter and feel certain that we can come to a final and amicable settlement of this issue.

Clair H. Fancy, P.E., Chief
June 24, 1993
Page 3

Please contact me if you have any questions or comments.

Very truly yours,



Scott Shirley

SS:cjb/

cc: Bruce Mitchell
Howard Rhodes
Richard Donelan
John West
Craig Hurd
Mike Riddle
David Buff
Allen Koleff
Curt Barton



State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To: <u>Clair Farcy</u>	Location: _____
To: _____	Location: _____
To: _____	Location: _____
From: <u>Jonathan H.</u>	Date: <u>6-23</u>

Interoffice Memorandum

At Bruce's request, Scott Davis left the following response with me: EPA concurs with the draft permit as written except for the wording in specific condition #8. They would like the phrase "over the period of time being evaluated" changed to "monthly".

I relayed this information to Bruce and he asked me to make the change as requested and pass it on to you. He also asked me to tell you that once all of the comments have settled and you are ready for the final permit, that he could come in and prepare it for your signature in about an hour.

PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC16-222359
PSD-FL-198
Expiration Date: April 30, 1995

GENERAL CONDITIONS:

- the analytical techniques or methods used; and
- the results of such analyses.

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

SPECIFIC CONDITIONS:

1. The construction and operation of these sources shall be in accordance with the capacities stated in the Revised Technical Evaluation and Preliminary Determination.

2. The packaged boilers may be operated continuously (8760 hrs/yr).

3. The maximum allowable NOx emissions shall not exceed 0.2 lb/MMBtu, 23.6 lbs/hr, and 103.4 tons/yr per boiler.

4. **The Department's determination of BACT is the use of natural gas as the primary fuel and No. 2 fuel oil as backup when natural gas is not available.** The sulfur content of the No. 2 fuel oil shall not exceed 0.05 percent, by weight. **Any delivery of No. 2 fuel oil shall be accompanied by laboratory analysis quantifying the density and percent sulfur, by weight.** During natural gas curtailment, annual SO₂ emissions from No. 2 fuel oil firing, total all three boilers, shall not exceed 25 tons/year. In the event that the ceiling for SO₂ is expected to be exceeded due to **continued** unavailability of natural gas caused by factors beyond the control of SKC, SKC shall notify the Department that it anticipates exceeding the ceiling as provided herein; and, the emissions of SO₂ during the period of such curtailment shall not be counted against the yearly emissions ceiling of 25 tons unless administrative proceedings result in a finding that the exceedance was within SKC's control. In no event shall the total annual emissions of SO₂ from the three steam boilers exceed a ceiling of 41 tons per year.

5. Visible emissions (VE) shall not exceed 5% opacity during natural gas firing and 10% opacity during fuel oil firing.

6. In accordance with requirements of 40 CFR 60.48(b), a monitoring system (CEMS) for nitrogen oxides shall be installed, operated, and maintained. Also, the natural gas, fuel oil and steam flows (both from the packaged boilers and from the CBCP facility) shall be metered and continuously recorded. The data shall be logged daily and maintained so that it can be provided to DER upon request.

PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC16-222359
PSD-FL-198
Expiration Date: April 30, 1995

SPECIFIC CONDITIONS:

7. Before this construction permit expires, **each packaged boiler** shall be tested and monitored for compliance with the emission limits in Specific Conditions No. 4, 5, and 6. Compliance tests for NOx shall be conducted in accordance with 40 CFR 60.46b(e)(3). Compliance with SO₂ limits shall be in accordance with 40 CFR 60.49b(r); **and, a stoichiometric quantification for SO₂ emissions shall be utilized using the actual density and sulfur weight percent and the quantity of fuel oil fired monthly.** Compliance with visible emission limits shall be demonstrated initially and annually in accordance with EPA Method 9.

8. The DER's Northeast District office and the RESD (Regulatory and Environmental Services Department) **office** shall be notified at least 15 days prior to the compliance tests. Compliance test results shall be submitted to the DER's Northeast District and Bureau of Air Regulation offices **and the RESD office** within 45 days after completion of the tests. Sampling facilities, methods, and reporting shall be in accordance with 40 CFR 60.49b, F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A.

9. The following Seminole Kraft Corporation (SKC) sources shall be permanently shut down and made incapable of operation: the No. 1 PB (power boiler), the No. 2 PB, the No. 3 PB, the No. 1 BB (bark boiler), and the No. 2 BB; and, SKC shall turn in their operation permits to the Division of Air Resources Management's Bureau of Air Regulation, within 30 days of written confirmation by DER of the successful completion of the initial compliance tests on the Cedar Bay Cogeneration Plant's boilers. The **RESD office** shall be specifically informed in writing within thirty days after each individual shut down of the above referenced equipment.

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

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

12. Pursuant to 40 CFR 49b(r), **quarterly reports shall be submitted to the RESD office (i.e., Administrator) certifying that only very low sulfur oil (i.e., ≤0.05% sulfur, by weight) meeting this definition was combusted in the affected facility during the preceding quarter. The firing of any fuel oil and its associated**

PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC16-222359
PSD-FL-198
Expiration Date: April 30, 1995

SPECIFIC CONDITIONS:

SO₂ emissions shall be quantified on a monthly and per boiler basis and submitted to the RESD office by the end of the month following the end of each quarter. The quarters are defined as January-March, April-June, July-September, and October-December; also, and per boiler, the final quarterly report shall include the total amount of the fuel oil fired and the quantified associated SO₂ emissions from the year. Also, a written report shall be submitted to the RESD office within 5 calendar days of any natural gas curtailment and the date(s) that fuel oil firing began.

Issued this _____ day
of _____, 1993

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Virginia B. Wetherell, Secretary



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

FAX TRANSMITTAL SHEET

TO: Ron Roberson

DATE: 6-18-93 PHONE: 904-630-3638

TOTAL NUMBER OF PAGES, INCLUDING COVER PAGE: 5

FROM: Bruce Mitchell

DIVISION OF AIR RESOURCES MANAGEMENT

COMMENTS: Draft of SC's + EPA letter

PHONE: 904-488-1344

FAX NUMBER: 904/922-6979

If there are any problems with this fax transmittal, please call the above phone number.

Best Available Copy

MESSAGE CONFIRMATION

JUN-18-'93 FRI 14:54

TERM ID: DIV OF AIR RES MGMT P-9999

TEL NO: 904-922-6979

NO.	DATE	ST. TIME	TOTAL TIME	ID	DEPT CODE	OK	NG
273	06-18	14:51	00°03'07	9046303638		03	01

MESSAGE CONFIRMATION

JUN-18-'93 FRI 14:57

TERM ID: DIV OF AIR RES MGMT P-9999

TEL NO: 904-922-6979

NO.	DATE	ST. TIME	TOTAL TIME	ID	DEPT CODE	OK	NG
274	06-18	14:55	00°01'30	9046303638		02	00



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

FAX TRANSMITTAL SHEET

TO: Scott Davis Region IV EPA

DATE: 6-18-93 PHONE: 404-347-3059

TOTAL NUMBER OF PAGES, INCLUDING COVER PAGE: 4

FROM: R Bruce Mitchell

DIVISION OF AIR RESOURCES MANAGEMENT

COMMENTS: draft SC's on SKC ghy boilers

PHONE: 904-488-1344

FAX NUMBER: 904/922-6979

If there are any problems with this fax transmittal, please call the above phone number.

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MESSAGE CONFIRMATION

JUN-18-'93 FRI 15:02

TERM ID: DIV OF AIR RES MGMT P-9999

TEL NO: 904-922-6979

NO.	DATE	ST. TIME	TOTAL TIME	ID	DEPT CODE	OK	NG
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MESSAGE CONFIRMATION

JUN-18-'93 FRI 15:00

TERM ID: DIV OF AIR RES MGMT P-9999

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275	06-18	14:58	00°02'01	64043473059		03	00

OERTEL, HOFFMAN, FERNANDEZ & COLE, P. A.

ATTORNEYS AT LAW

M. CHRISTOPHER BRYANT
R. L. CALEEN, JR.
C. ANTHONY CLEVELAND
TERRY COLE
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THOMAS G. TOMASELLO
W. DAVID WATKINS

SUITE C
2700 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301

MAILING ADDRESS:
POST OFFICE BOX 6507
TALLAHASSEE, FLORIDA 32314-6507

TELEPHONE (904) 877-0099
FACSIMILE (904) 877-0981

NORMAN H. HORTON, JR.
OF COUNSEL

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ENVIRONMENTAL CONSULTANT
(NOT A MEMBER OF THE FLORIDA BAR)

J. R. SUBRAMANI, PH. D., P. E.
ENVIRONMENTAL CONSULTANT
(NOT A MEMBER OF THE FLORIDA BAR)

June 16, 1993

Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of Environmental Regulation
111 South Magnolia Avenue
Tallahassee, FL 32301

RECEIVED
JUN 17 1993
Division of Air
Resources Management

Re: Seminole Kraft Corporation Package Boiler PSD Permit

Dear Clair:

Yesterday we received the United States Environmental Protection Agency (EPA) comments concerning the proposed Seminole Kraft Corporation Prevention of Significant (PSD) Permit for the three new package boilers. The third paragraph of the EPA letter makes several recommendations concerning modifications to the conditions of the permit which appear to be inconsistent with our previous agreement concerning SO₂ emissions for these units. The comments are made without clear support in the federal regulations. If included, we believe these provisions would unnecessarily limit operation of the package boilers. The following are our specific comments concerning the EPA recommendations.

The EPA recommends that Specific Condition No. 4 be modified to "include a basis for 25 tons per year limit, in a lb./MMBtu and lbs./hr. increment . . ." There is no basis in the Code of Federal Regulations (C.F.R.) for such a requirement. 40 C.F.R. 60.41b defines "very low sulphur oil" as that containing no more than 0.5% sulphur by weight. The specific emissions limitation of 0.5 lbs./MMBtu set forth in 40 C.F.R. 60.42b(d) only applies to facilities other than those burning very low sulphur oil. Furthermore, 40 C.F.R. 60.47b(f) and 40 C.F.R. 60.45b(j), both provide that facilities combusting very low sulphur oil are not subject to the SO₂ emission monitoring requirements if they obtain fuel receipts as described in 40 C.F.R. 60.49b(r). Therefore, under 40 C.F.R. 60.49b(r), the facility may establish its compliance with the very low sulphur standard from obtaining fuel receipts from the fuel supplier certifying that the oil as delivered has less than 0.5% sulphur by weight, or in this instance, complies with the permit requirement of less than 0.05% sulphur by weight.

In recommending that an emission rate for SO₂ be established, the EPA letter makes an inappropriate analogy to Specific Condition No. 3, which does establish an emissions rate for NO_x. Under Specific Condition No. 6, compliance with the NO_x emission rate is through a continuous emissions monitoring system, as required in 40 C.F.R. 60.48b. However, there is no exception in 40 C.F.R. 60.44b for emissions of nitrogen oxides similar to that established for the use of very low sulphur oil with regard to SO₂. Thus, the mere existence of an emissions rate for NO_x in the permit provides no basis for establishing a similar rate for SO₂ where no such rates are required in the regulation for facilities utilizing very low sulphur oil.

There are also significant practical problems with establishing an emissions rate for SO₂ in this instance. In order to establish the emission rate, several assumptions must be made concerning fuel density and heat rate. While averages of these values may be assumed for purposes of establishing an emissions rate, problems may arise when these variables do not hold true for each and every shipment of fuel oil utilized in the package boilers. Again, a new requirement exhibiting the potential for error and miscalculation is introduced where there is no corresponding regulatory requirement and it is not required by the settlement agreement between Seminole Kraft and the Department.

The EPA letter also recommends that a limit be placed on the gallons of fuel oil used in any 12 consecutive month period based on a fuel oil sulphur content of 0.05% and the annual SO₂ emission limit. If the fuel oil sulphur content can be established with reasonable certainty through certificate of the supplier, compliance with the annual SO₂ limits can be established without the necessity of placing a limit on the gallons of fuel oil which can be utilized. Moreover, one of the Department's selling points in convincing the company to agree to the SO₂ limit of 25 tons per year was that in practice, many fuel oil shipments may in fact have a sulphur content of less than 0.05%. Specific Condition No. 4 provides that sulphur content "shall not exceed 0.05% by weight," but does not preclude use of even lower sulphur oil. Requiring that the gallons of annual fuel usage be set based on 0.05% sulphur fuel effectively deprives the company of the expected benefit of utilizing even lower sulphur fuel and prevents ever operating the mill up to the 25 ton per year limit. Moreover, like the preceding comment, there is no regulation which requires such a restriction.

Finally, the EPA letter requests that the permit include "monthly record keeping requirements . . . to enable data to be obtained for fuel oil usage on a 12-month rolling annual average basis." While Seminole Kraft does not object to keeping monthly records, we believe that the emissions ceilings in the permit are established on a calendar year basis rather than on a 12-month rolling annual average basis. Thus, the EPA request appears inconsistent with the negotiated settlement with the department.

Clair H. Fancy, P.E., Chief
June 16, 1993
Page 3

This seems to lack any perceivable regulatory basis, as well. The only C.F.R. provision requiring computation on a 12-month rolling annual average basis is calculation of the annual capacity factor under 40 C.F.R. 60.49b(d). In this instance, where all other regulatory requirements have been more than satisfied, the only effect of EPA's record keeping request is to potentially further limit mill operations in a manner inconsistent with our agreement.

The EPA letter seems to make what are more in the nature of comments and recommendations, made without the benefit of legal citation. We do not read the letter as a demand for revisions to demonstrate consistency with applicable federal standards. Under the circumstances, we feel that the Department would be justified in deciding against revision of the permit based on the EPA letter.

We understand the Department is currently in the process of considering whether or not to include the EPA recommendations as permit conditions. Based on our preceding comments, we request that the permit not be revised to incorporate the EPA comments.

We appreciate the Department's assistance in working to get this permit issued in a timely fashion.

Sincerely,



Scott Shirley

SS:cjb/

cc: Bruce Mitchell
Howard Rhodes
Richard Donelan
John West
Craig Hurd
Mike Riddle
David Buff
Allen Koleff
Curt Barton

J. Reynolds
C. Holladay



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

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JUN 14 1993

Division of Air
Resources Management

4APT/AEB

JUN - 8 1993

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JUN 11 1993

D.E.R. OFFICE
OF THE SECRETARY

Mr. Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Seminole Kraft Corporation, Duval County (PSD-FL-198)

Dear Mr. Fancy:

This is to acknowledge receipt of the Revised Technical Evaluation and Preliminary Determination, including the draft Prevention of Significant Deterioration (PSD) permit, for the above referenced facility, by your letter dated April 20, 1993. The existing Seminole Kraft Corporation facility is a 100-percent recycled fiber paper mill. The proposed modification to the existing facility will be the addition of three package boilers, to be fired with fuel oil and natural gas.

Your determination proposes to limit SO₂ emissions through limiting the sulfur content of the distillate fuel oil and to limit beryllium emissions through efficient combustion and the use of ash free and low ash fuels.

We have reviewed the package as submitted and have the following comments concerning the draft permit. In Specific Condition 4 of the permit, the emission limit for SO₂ should include a basis for the 25 tons per year limit, in a lb/MMBtu and lbs/hr increment (as established in Specific Condition 3 for NO_x emissions). In addition, we recommend a limit on the gallons of fuel oil used in any 12 consecutive month period, on the basis of 0.05% sulfur content and the maximum annual SO₂ emission limit. For compliance purposes, monthly recordkeeping requirements should be included to enable data to be obtained for fuel oil usage on a 12 month rolling annual average basis.

Thank you for the opportunity to review and comment on the package. If you have any questions or comments, please contact Mr. Scott Davis of my staff at (404) 347-5014.

Sincerely yours,

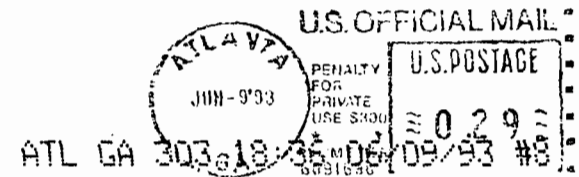
Jewell A. Harper, Chief
Air Enforcement Branch
Air, Pesticides, and Toxics
Management Division

cc: B. Mitchell
C. Reynolds
C. Talladay
D. Cole, NE Dist
K. Robinson, DEASID
L. Ruff, SBW

B. Collins, CEPO
C. Nurd, SRE
E. Southern
EFF/B/SPL } 6-15-93

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION IV
345 COURTLAND STREET
ATLANTA GEORGIA 30365

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[Handwritten signature]

Mr. Clair H. Fancy P.E., Chief
Bureau of Air Regulations
Florida Department of Environmental
Regulations
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400



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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

4A1P-AED

JUN - 8 1993

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Bureau of Air Regulation
Florida Department of Environmental
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Twin Towers Office Building
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Tallahassee, Florida 32399-2400

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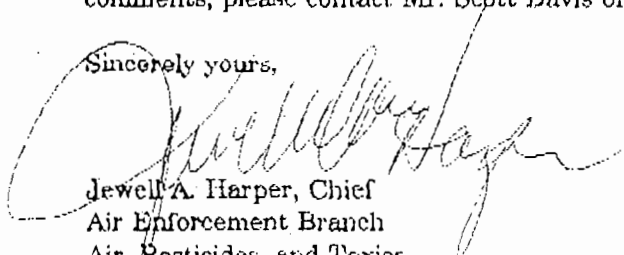
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Sincerely yours,



Jewell A. Harper, Chief
Air Enforcement Branch
Air, Pesticides, and Toxics
Management Division



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

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Resources Management

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JUN - 8 1993

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D.E.R. OFFICE
OF THE SECRETARY

Mr. Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of Environmental
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Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Seminole Kraft Corporation, Duval County (PSD-FL-198)

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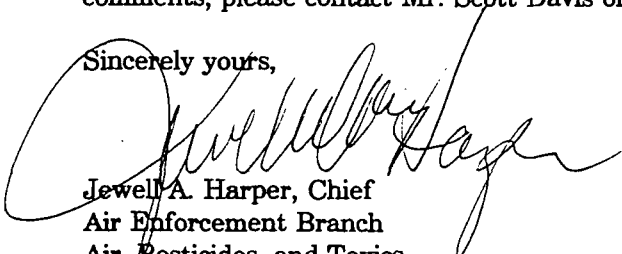
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Jewell A. Harper, Chief
Air Enforcement Branch
Air, Pesticides, and Toxics
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OERTEL, HOFFMAN, FERNANDEZ & COLE, P. A.

ATTORNEYS AT LAW

M. CHRISTOPHER BRYANT
R. L. CALEEN, JR.
C. ANTHONY CLEVELAND
TERRY COLE
ROBERT C. DOWNIE, II
SEGUNDO J. FERNANDEZ
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THOMAS G. TOMASELLO
W. DAVID WATKINS

SUITE C
2700 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301

MAILING ADDRESS:
POST OFFICE BOX 6507
TALLAHASSEE, FLORIDA 32314-6507

TELEPHONE (904) 877-0099
FACSIMILE (904) 877-0981

NORMAN H. HORTON, JR.
OF COUNSEL

JOHN H. MILLICAN
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J. P. SUBRAMANI, PH. D., P. E.
ENVIRONMENTAL CONSULTANT
(NOT A MEMBER OF THE FLORIDA BAR)

June 16, 1993

Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of Environmental Regulation
111 South Magnolia Avenue
Tallahassee, FL 32301

Re: Seminole Kraft Corporation Package Boiler PSD Permit

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RECEIVED

JUN 17 1993

Division of Air
Resources Management

*of Mark -
Richard needs
to respond to
this*
GPH
7/27

*Basis
Should
be
Calculated
based
on
0.05%
Sulfur
GPH
6/17*

In recommending that an emission rate for SO₂ be established, the EPA letter makes an inappropriate analogy to Specific Condition No. 3, which does establish an emissions rate for NO_x. Under Specific Condition No. 6, compliance with the NO_x emission rate is through a continuous emissions monitoring system, as required in 40 C.F.R. 60.48b. However, there is no exception in 40 C.F.R. 60.44b for emissions of nitrogen oxides similar to that established for the use of very low sulphur oil with regard to SO₂. Thus, the mere existence of an emissions rate for NO_x in the permit provides no basis for establishing a similar rate for SO₂ where no such rates are required in the regulation for facilities utilizing very low sulphur oil.

There are also significant practical problems with establishing an emissions rate for SO₂ in this instance. In order to establish the emission rate, several assumptions must be made concerning fuel density and heat rate. While averages of these values may be assumed for purposes of establishing an emissions rate, problems may arise when these variables do not hold true for each and every shipment of fuel oil utilized in the package boilers. Again, a new requirement exhibiting the potential for error and miscalculation is introduced where there is no corresponding regulatory requirement and it is not required by the settlement agreement between Seminole Kraft and the Department.

We do every day w/o Problem etc

The EPA letter also recommends that a limit be placed on the gallons of fuel oil used in any 12 consecutive month period based on a fuel oil sulphur content of 0.05% and the annual SO₂ emission limit. If the fuel oil sulphur content can be established with reasonable certainty through certificate of the supplier, compliance with the annual SO₂ limits can be established without the necessity of placing a limit on the gallons of fuel oil which can be utilized. Moreover, one of the Department's selling points in convincing the company to agree to the SO₂ limit of 25 tons per year was that in practice, many fuel oil shipments may in fact have a sulphur content of less than 0.05%. Specific Condition No. 4 provides that sulphur content "shall not exceed 0.05% by weight," but does not preclude use of even lower sulphur oil. Requiring that the gallons of annual fuel usage be set based on 0.05% sulphur fuel effectively deprives the company of the expected benefit of utilizing even lower sulphur fuel and prevents ever operating the mill up to the 25 ton per year limit. Moreover, like the preceding comment, there is no regulation which requires such a restriction.

Do we need "selling points" to protect the public's Air Quality?

Finally, the EPA letter requests that the permit include "monthly record keeping requirements . . . to enable data to be obtained for fuel oil usage on a 12-month rolling annual average basis." While Seminole Kraft does not object to keeping monthly records, we believe that the emissions ceilings in the permit are established on a calendar year basis rather than on a 12-month rolling annual average basis. Thus, the EPA request appears inconsistent with the negotiated settlement with the department.

12 month rolling average (NOT calendar yr) is basis for compliance if stated in permit.

Clair H. Fancy, P.E., Chief
June 16, 1993
Page 3

This seems to lack any perceivable regulatory basis, as well. The only C.F.R. provision requiring computation on a 12-month rolling annual average basis is calculation of the annual capacity factor under 40 C.F.R. 60.49b(d). In this instance, where all other regulatory requirements have been more than satisfied, the only effect of EPA's record keeping request is to potentially further limit mill operations in a manner inconsistent with our agreement.

The EPA letter seems to make what are more in the nature of comments and recommendations, made without the benefit of legal citation. We do not read the letter as a demand for revisions to demonstrate consistency with applicable federal standards. Under the circumstances, we feel that the Department would be justified in deciding against revision of the permit based on the EPA letter.

We understand the Department is currently in the process of considering whether or not to include the EPA recommendations as permit conditions. Based on our preceding comments, we request that the permit not be revised to incorporate the EPA comments.

We appreciate the Department's assistance in working to get this permit issued in a timely fashion.

Sincerely,



Scott Shirley

SS:cjb/

cc: Bruce Mitchell
Howard Rhodes
Richard Donelan
John West
Craig Hurd
Mike Riddle
David Buff
Allen Koleff
Curt Barton

[Handwritten notes]

Best Available Copy



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET N.E.
ATLANTA, GEORGIA 30368

4APT-AEB

JUN - 8 1993

Mr. Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32300 0400

RE: Seminole Kraft Corporation, Duval County (PSD-FL-198)

Dear Mr. Fancy:

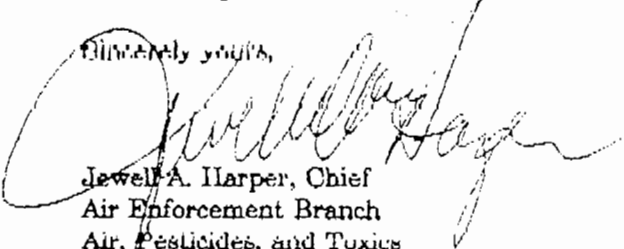
This is to acknowledge receipt of the Revised Technical Evaluation and Realizability Determination, including the draft Revision of Air Quality Criteria (AQC) permit, for the above referenced facility, by your letter dated April 20, 1993. The existing Seminole Kraft Corporation facility is a 100-percent recycled fiber paper mill. The proposed modification to the existing facility will be the addition of three package boilers, to be fired with fuel oil and natural gas.

Your determination proposes to limit SO₂ emissions through limiting the sulfur content of the distillate fuel oil and to limit beryllium emissions through efficient combustion and the use of ash free and low ash fuels.

We have reviewed the package as submitted and have the following comments concerning the draft permit. In Specific Condition 4 of the permit, the emission limit for SO₂ should include a basis for the 25 tons per year limit, in a lb/MMBtu and lb/hr increment (as established in Specific Condition 3 for NO_x emissions). In addition, we recommend a limit on the gallons of fuel oil used in any 12 consecutive month period, at the level of 0.0500 million gallons and the maximum annual NO_x emission limit. For compliance purposes, monthly recordkeeping requirements should be included to enable data to be obtained for fuel oil usage on a 12 month rolling annual average basis.

Thank you for the opportunity to review and comment on the package. If you have any questions or comments, please contact Mr. Scott Davis of my staff at (404) 347-5014.

Sincerely yours,



Jewell A. Harper, Chief
Air Enforcement Branch
Air, Pesticides, and Toxics
Management Division

RECEIVED

MAY 27 1993

Division of Air Resources Management

FLORIDA PUBLISHING COMPANY
Publisher
JACKSONVILLE, DUVAL COUNTY, FLORIDA

STATE OF FLORIDA
COUNTY OF DUVAL

Before the undersigned authority personally appeared
Coleman Kane
Contract Sales Rep
who on oath says that he is
of The Florida Times-Union

a daily newspaper published at Jacksonville in Duval County, Florida; that the
attached copy of advertisement, being a
Legal Notice

in the matter of
Notice Of Intent To Issue Permit

in the
Court,
was published in THE FLORIDA TIMES-UNION in the issues of
May 11, 1993 (Correction)

Affiant further says that the said The Florida Times-Union is a newspaper published at Jacksonville, in said Duval County, Florida, and that the said newspaper has heretofore been continuously published in said Duval County, Florida, The Florida Times-Union each day, has been entered as second class mail matter at the postoffice in Jacksonville, in said Duval County, Florida, for a period of one year next preceeding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in said newspaper.

Sworn to and subscribed before me
this 11 day of
May 1993

Notary Public, State of Florida at Large.
Signature of Vera Janie Likens
Signature of Coleman Kane

My Commission Expires
VERA JANIE LIKENS
MY COMMISSION # CC 222556 EXPIRES
June 1, 1996
BONDED THRU TROY FAIR INSURANCE, INC.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF INTENT TO ISSUE PERMIT
The Department of Environmental Regulation hereby gives notice of its intent to issue permits to Seminole Kraft Corporation, 9469 Eastport Road, Jacksonville, Florida 32229, to construct three packaged boilers at their facility in Jacksonville, Duval County, Florida. The maximum predicted all sources PSD Class II sulfur dioxide increments which would be consumed after this project is completed are the following: 5.0 ug/m3, annual average, or 25% of the available annual increment of 20 ug/m3; 133 ug/m3, 24-hour average or 146% of the available 24-hour increment of 91 ug/m3, and 447 ug/m3, 3-hour average or 87% of the available 3-hour increment of 512 ug/m3. Seminole Kraft and Cedar Bay combined do not contribute significantly to any predicted violations of the PSD Class II 24-hour increment. The maximum predicted PSD Class I sulfur dioxide increments which would be consumed are the following: 0.0 ug/m3, annual average, or 0% of the available annual increment, 2.0 ug/m3, 24-hour average or 82% of the available 24-hour increment, of 5.0 ug/m3, and 39 ug/m3, 3-hour average or 76% of the available 3-hour increment of 25 ug/m3. A determination of Best Available Control Technology (BACT) was required. The Department is issuing this Intent to Issue for the reasons stated in the Revised Technical Evaluation and Preliminary Determination. The applications are available for public inspection during business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at: Department of Environmental Regulation, Bureau of Air Regulation, 111 South Magnolia Drive, Tallahassee, Florida. Department of Environmental Regulation, Northeast District, 7825 Baymeadows Way, Jacksonville, Florida 32256-3767. Duval County Air Quality Division, 421 West Church Street, Suite 412, Jacksonville, Florida 32202-4111. Any person may send written comments on the proposed action to Mr. Preston Lewis at the Department's Tallahassee address. All comments received within 30 days of the publication of this notice will be considered in the Department's final determination. Further, a public hearing can be requested by any persons. Such requests must be submitted within 30 days of this notice.

cc: G. Reynolds
B. Mitchell
C. Halladay
Q. Cole, NE Dist
R. Roberson, DE
Q. Harper, EPA
Q. Runyak, WPE
3/25/93

RECEIVED

MAY 27 1993

Division of Air Resources Management

FLORIDA PUBLISHING COMPANY

Publisher

JACKSONVILLE, DUVAL COUNTY, FLORIDA

STATE OF FLORIDA } COUNTY OF DUVAL }

Before the undersigned authority personally appeared _____

Coleman Kane

who on oath says that he is

Contract Sales Rep

of The Florida Times-Union

a daily newspaper published at Jacksonville in Duval County, Florida; that the

Legal Notice

attached copy of advertisement, being a _____

in the matter of Notice Of Intent To Issue Permit

in the _____ Court,

was published in THE FLORIDA TIMES-UNION in the issues of _____

May 11, 1993 (Correction)

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Sworn to and subscribed before me

this 11 day of

May 1993

Notary Public, State of Florida at Large.

Coleman Kane

My Commission Expires

VERA JANIE LIKENS

MY COMMISSION # CG 222556 EXPIRES

June 1, 1996

BONDED THRU TROY FAH INSURANCE, INC.

DA 444



STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION NOTICE OF INTENT TO ISSUE PERMIT The Department of Environmental Regulation hereby gives notice of its intent to issue permits to Seminole Kraft Corporation, 9469 Eastport Road, Jacksonville, Florida 32229, to construct three packaged boilers at their facility in Jacksonville, Duval County, Florida. The maximum predicted all sources PSD Class II sulfur dioxide increments which would be consumed after this project is completed are the following: 5.0 ug/m3, annual average, or 25% of the available annual increment of 20 ug/m3, 133 ug/m3, 24-hours average or 146% of the available 24-hour increment of 91 ug/m3, and 447 ug/m3, 3-hour average or 87% of the available 3-hour increment of 512 ug/m3. Seminole Kraft and Cedar Bay combined do not contribute significantly to any predicted violations of the PSD Class II 24-hour increment. The maximum predicted PSD Class I sulfur dioxide increments which would be consumed are the following: 0.0 ug/m3, annual average, or 0% of the available annual increment 2.0 ug/m3; 4.1 ug/m3, 24-hour average or 82% of the available 24 hour increment of 5.0 ug/m3, and 19 ug/m3, 3-hour average or 76% of the available 3-hour increment of 25 ug/m3. A determination of Best Available Control Technology (BACT) was required. The Department is issuing this intent to issue for the reasons stated in the Revised Technical Evaluation and Preliminary Determination. The applications are available for public inspection during business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at: Department of Environmental Regulation, Bureau of Air Regulation, 111 South Magnolia Drive, Tallahassee, Florida Department of Environmental Regulation, Northeast District, 7825 Baymeadows Way, Jacksonville, Florida 32256-3767 Duval County Air Quality Division, 421 West Church Street, Suite 412, Jacksonville, Florida 32202-4111 Any person may send written comments on the proposed action to Mr. Preston Lewis at the Department's Tallahassee address. All comments received within 30 days of the publication of this notice will be considered in the Department's final determination. Further, a public hearing can be requested by any persons. Such requests must be submitted within 3 days of this notice.

cc: G. Reynolds
B. Mitchell
C. Halladay
A. Cole, NE Dist
R. Edensson
J. Harper, EPA
G. Bunyak, WPS

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF INTENT TO ISSUE PERMIT

The Department of Environmental Regulation gives notice of its intent to issue a permit to Seminole Kraft Corporation, 9469 East Port Road, Jacksonville, Florida 32229 to construct three packaged boilers at their facility in Jacksonville, Duval County, Florida. The maximum predicted all sources PSD Class II sulfur dioxide increments which would be consumed after this project is completed are the following: 5.0 ug/m³, annual average, or 25% of the available annual increment of 20 ug/m³, 133 ug/m³, 24-hour average or 146% of the available 24-hour increment of 91 ug/m³; and 447 ug/m³, 3-hour average or 87% of the available 3-hour increment of 512 ug/m³. Seminole Kraft and Cedar Bay combined do not contribute significantly to any predicted violations of the PSD Class II 24-hour increment. The maximum predicted PSD Class I sulfur dioxide increments which would be consumed are the following: 0.0 ug/m³, annual average, or 0% of the available annual increment of 2.0 ug/m³; 4.1 ug/m³, 24-hour average or 82% of the available 24-hour increment of 5.0 ug/m³, and 19 ug/m³, 3-hour average or 76% of the available 3-hour increment of 25 ug/m³. A determination of Best Available Control Technology (BACT) was required. The Department is issuing this Intent to Issue for the reasons stated in the Revised Technical Evaluation and Preliminary Determination.

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

The Petition shall contain the following information; (a) The name, address, and telephone number of each petitioner, the applicant's name and address; the Department Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by Petitioner, if any; (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement of which rules or

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

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

The **application is** available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Regulation
Bureau of Air Regulation
111 South Magnolia Drive
Tallahassee, Florida

Department of Environmental Regulation
Northeast District
7825 Baymeadows Way
Jacksonville, Florida 32256-3767

Duval County Air Quality Division
421 West Church Street, Suite 412
Jacksonville, Florida 32202-4111

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

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

RECEIVED

MAY 05 1993

Division of Air Resources Management

FLORIDA PUBLISHING COMPANY
Publisher
JACKSONVILLE, DUVAL COUNTY, FLORIDA

STATE OF FLORIDA
COUNTY OF DUVAL

Before the undersigned authority personally appeared

Coleman Kane

who on oath says that he is

Contract Sales Rep

of The Florida Times-Union

a daily newspaper published at Jacksonville in Duval County, Florida; that the

Legal Notice

attached copy of advertisement, being a

Notice of Intent To Issue

in the matter of

Permit

in the Court,

was published in THE FLORIDA TIMES-UNION in the issues of

April 25, 1993

Affiant further says that the said The Florida Times-Union is a newspaper published at Jacksonville, in said Duval County, Florida, and that the said newspaper has heretofore been continuously published in said Duval County, Florida, The Florida Times-Union each day, has been entered as second class mail matter at the postoffice in Jacksonville, in said Duval County, Florida, for a period of one year next preceeding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in said newspaper.

Sworn to and subscribed before me

this 29 day of

April A.D. 19 93

Vera Janie Likens
Notary Public,
State of Florida at Large.

Coleman Kane

My Commission Expires

VERA JANIE LIKENS

MY COMMISSION # CC 222556 EXPIRES

June 1, 1996

BONDED THRU TROY FAIR INSURANCE, INC.

DA 444



STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF INTENT TO ISSUE PERMIT
The Department of Environmental Regulation hereby gives notice of its intent to issue permits to Seminole Kraft Corporation, 9469 Eastport Road, Jacksonville, Florida 32229, to construct three package boilers at their facility in Jacksonville, Duval County, Florida. The maximum predicted all sources PSD Class II sulfur dioxide increments which would be consumed after this project is completed are the following: 5.0 ug/m3, annual average, or 25% of the available annual increment of 20 ug/m3, 133 ug/m3, 24-hours average or 146% of the available 24-hour increment of 91 ug/m3, and 447 ug/m3. Seminole Kraft and Cedar Bay combined do not contribute significantly to any predicted violations of the PSD Class II 24-hour increment. The maximum predicted PSD Class I sulfur dioxide increments which would be consumed are the following: 0.0 ug/m3, annual average, or 0% of the available 24-hour increment of 5.0 ug/m3, and 19 ug/m3, 3-hour average or 76% of the available 3-hour increment of 25 ug/m3. A determination of Best Available Control Technology (BACT) was required. The Department is issuing this intent to issue for the reasons stated in the Revised Technical Evaluation and Preliminary Determination.
A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes (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 at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.
The Petition shall contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner; (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and, (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.
If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the applications have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, Florida Administrative Code.
The applications are available for public inspection during business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at: Department of Environmental Regulation, Bureau of Air Regulation, 111 South Magnolia Drive, Tallahassee, Florida.
Department of Environmental Regulation, Northeast District, 7825 Baymeadows Way, Jacksonville, Florida 32256-3767
Duval County Air Quality Division, 421 West Churr Street, Suite 412, Jacksonville, Florida 32202-4111.
Any person may send written comments on the proposed action to Mr. Preston Lewis at the Department's Tallahassee address. All comments received within 30 days of the publication of this notice will be considered in the Department's final determination.
Further, a public hearing can be requested by any persons. Such requests must be submitted within 14 days of this notice.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
75 Spring Street, S.W.
Atlanta, Georgia
30303

May 19, 1993

RECEIVED

MAY 21 1993

Mr. C. H. Fancy
Chief, Bureau of Air Regulation
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Division of Air
Resources Management

Dear Mr. Fancy:

We have reviewed Seminole Kraft Corporation's (SKC) permit application and the State's April 16, 1993, Technical Evaluation and Preliminary Determination and proposed permit conditions for the project. We understand that SKC is proposing to install three packaged steam boilers at their recycled fiber mill facility in Jacksonville, while contemporaneously shutting down several boilers and pulping facilities. As you know, the Jacksonville facility is located approximately 45 km southeast of the Okefenokee Wilderness Area (WA) and 90 km southwest of the Wolf Island WA, both Class I air quality areas administered by the Fish and Wildlife Service.

In their application, SKC proposed firing fuel oil with a maximum sulfur content of 0.5 percent as the primary fuel, with natural gas as the backup fuel. We are pleased to see that SKC has now agreed to fire natural gas as the primary fuel, and use fuel oil with a maximum sulfur content of 0.05 percent as backup. This fuel usage, combined with the emissions credits resulting from the shutdown of old equipment, will result in projected emissions of all pollutants well below the PSD-significant amounts. Based on the currently proposed emissions and the distance to the Class I areas, we do not expect that the SKC project will adversely affect resources in either the Okefenokee or Wolf Island WA's.

We do have one comment regarding the permit conditions contained in the April 16 notice. Although the permitted emission limits are based on SKC firing natural gas as the primary fuel with fuel oil as backup, the proposed permit conditions do not specify this fuel use requirement. We recommend that you include a specific permit condition discussing this requirement in the final permit.

If you have any questions regarding our comments, please contact Sandra Silva of our Air Quality office in Denver at 303/969-2071.

Sincerely yours,



James W. Pulliam, Jr.
Regional Director

cc:

Jewell Harper, Chief
Air Enforcement Branch
Air, Pesticides and Toxic Management Division
U.S. EPA, Region 4
345 Courtland Street, NE.
Atlanta, Georgia 30365

Mr. James A. Heard
Attorney at Law
2902 Independent Square
Jacksonville, Florida 32202

J. Reynolds
B. Mitchell
C. Halladay
G. Cole, WEDist.
R. Robinson, DC AQD
D. Buff, KBN
B. Collom, BEPD
C. Hurd, SKC
R. Donelan, OGC
CHF/5B/6PL

} 5/28/93



Seminole Kraft Corporation

Jacksonville Mill

Best Available Copy

9469 Eastport Road
P.O. Box 26998
Jacksonville, Florida 32218-0998

904 751-6400

Fax Number - 904 751-5822

FACSIMILE TRANSMITTAL

Date: 05/14/93

No. of pages: _____
(Excluding this cover sheet)

Time: _____

TO: C. H. Farny, Chief

Location: Bureau of Air Regulation
Tallahassee, Fl

MESSAGE:

Hard copy to follow, U.S. Mail.

From: E. J. Eskindysmaa

Phone: (904) 751-6400 Ext. 279

Best Available Copy

FLORIDA PUBLISHING COMPANY
Publisher
JACKSONVILLE, DUVAL COUNTY, FLORIDA

STATE OF FLORIDA)
COUNTY OF DUVAL)

Before the undersigned authority personally appeared _____

Coleman Kane _____ who on oath says that he is

Contract Sales Rep _____ of The Florida Times-Union

a daily newspaper published at Jacksonville in Duval County, Florida; that the
attached copy of advertisement, being a _____ Legal Notice

in the matter of _____ Notice Of Intent To Issue Permit

in the _____ Court,

was published in THE FLORIDA TIMES-UNION in the issues of _____

May 11, 1993 (Correction)

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Sworn to and subscribed before me

this 11 day of May 1993

Vera Janie Likens
Notary Public,
State of Florida at Large.

Coleman Kane

My Commission Expires _____
VERA JANIE LIKENS
MY COMMISSION # CC 222568 EXPIRES

DA 444  JUNE 1, 1996
BONDING THROUGH TRISTAR INSURANCE, DC.

**STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL REGULATION
NOTICE OF INTENT TO ISSUE PERMIT**
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Department of Environmental Regulation, Northeast District, 7825 Baymeadows Way, Jacksonville, Florida 32256-3747
Duval County Air Quality Division, 421 West Church Street, Suite 412, Jacksonville, Florida 32202-4111
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Publisher
JACKSONVILLE, DUVAL COUNTY, FLORIDA

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May 11, 1993 (Correction)

Affiant further says that the said The Florida Times-Union is a newspaper published at Jacksonville, in
said Duval County, Florida, and that the said newspaper has heretofore been continuously published in
said Duval County, Florida, The Florida Times-Union each day, has been entered as second class mail
matter at the postoffice in Jacksonville, in said Duval County, Florida, for a period of one year next
preceeding the first publication of the attached copy of advertisement; and affiant further says that he has
neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for
the purpose of securing this advertisement for publication in said newspaper.

Sworn to and subscribed before me

this 11 day of

May A.D. 1993

[Signature of Vera Janie Likens]
Notary Public,
State of Florida at Large.

[Signature of Coleman Kane]

My Commission Expires

VERA JANIE LIKENS

MY COMMISSION # CC 222568 EXPIRES

June 1, 1996

BONDING THROUGH TRICOR FINANCIAL INSURANCE, INC.

DA 444



STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL REGULATION
NOTICE OF INTENT TO ISSUE PERMIT
The Department of Environmental Regulation hereby gives notice of its intent to issue permits to Seminole Kraft Corporation, 9469 Eastport Road, Jacksonville, Florida 32229, to construct three packaged boilers at their facility in Jacksonville, Duval County, Florida. The maximum predicted all sources PSD Class II sulfur dioxide increments which would be consumed after this project is completed are the following: 5.0 ug/m3, annual average, or 25% of the available annual increment of 20 ug/m3, 133 ug/m3, 24-hours average or 146% of the available 24-hour increment of 91 ug/m3, and 447 ug/m3, 3-hour average or 87% of the available 3-hour increment of 512 ug/m3. Seminole Kraft and Cedar Bay combined do not contribute significantly to any predicted violations of the PSD Class II 24-hour increment. The maximum predicted PSD Class I sulfur dioxide increments which would be consumed are the following: 0.0 ug/m3, annual average, or 0% of the available annual increment 2.0 ug/m3; 4.1 ug/m3, 24 hour average or 82% of the available 24 hour increment of 5.0 ug/m3, and 19 ug/m3, 3-hour average or 76% of the available 3-hour increment of 25 ug/m3. A determination of Best Available Control Technology (BACT) was required. The Department is issuing this intent to issue for the reasons stated in the Revised Technical Evaluation and Preliminary Determination.
The applications are available for public inspection during business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at: Department of Environmental Regulation, Bureau of Air Regulation, 111 South Magnolia Drive, Tallahassee, Florida
Department of Environmental Regulation, Northeast District, 7825 Baymeadows Way, Jacksonville, Florida 32256-3767
Duval County Air Quality Division, 421 West Church Street, Suite 412, Jacksonville, Florida 32202-4111
Any person may send written comments on the proposed action to Mr. Preston Lewis at the Department's Tallahassee address. All comments received within 30 days of the publication of this notice will be considered in the Department's final determination.
Further, a public hearing can be requested by any persons. Such requests must be submitted within 30 days of this notice.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF INTENT TO ISSUE PERMIT

The Department of Environmental Regulation gives notice of its intent to issue a permit to Seminole Kraft Corporation, 9469 East Port Road, Jacksonville, Florida 32229 to construct three packaged boilers at their facility in Jacksonville, Duval County, Florida. The maximum predicted all sources PSD Class II sulfur dioxide increments which would be consumed after this project is completed are the following: 5.0 ug/m³, annual average, or 25% of the available annual increment of 20 ug/m³, 133 ug/m³, 24-hour average or 146% of the available 24-hour increment of 91 ug/m³; and 447 ug/m³, 3-hour average or 87% of the available 3-hour increment of 512 ug/m³. Seminole Kraft and Cedar Bay combined do not contribute significantly to any predicted violations of the PSD Class II 24-hour increment. The maximum predicted PSD Class I sulfur dioxide increments which would be consumed are the following: 0.0 ug/m³, annual average, or 0% of the available annual increment of 2.0 ug/m³; 4.1 ug/m³, 24-hour average or 82% of the available 24-hour increment of 5.0 ug/m³, and 19 ug/m³, 3-hour average or 76% of the available 3-hour increment of 25 ug/m³. A determination of Best Available Control Technology (BACT) was required. The Department is issuing this Intent to Issue for the reasons stated in the Revised Technical Evaluation and Preliminary Determination.

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

The Petition shall contain the following information; (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by Petitioner, if any; (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement of which rules or

Department of Environmental Regulation
Routing and Transmittal Slip

To: (Name, Office, Location)

- | | | |
|----|-------------------------|--|
| 1. | <i>Clair 5/13 P. Hy</i> | |
| 2. | | <i>Thanks, PIS
 keep this in permit
 file in case we
 need documentation
 for EPA
 Clair</i> |
| 3. | | |
| 4. | | |

Remarks:

Seminole Kraft has agreed to publish the notice again - but without the administrative hearing requirements language. This will satisfy the EPA requirements (increment consumption, BACT required, where app. is available, & 30 day comment period). The state requirements were met on the 1st notice - Richard Donelan, Scott Shirley & I were all in agreement on this

From: <i>Patty</i>	Date <i>5/7</i> <hr/> Phone
---------------------------	-----------------------------------

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

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

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

Department of Environmental Regulation
Bureau of Air Regulation
111 South Magnolia Drive
Tallahassee, Florida

Department of Environmental Regulation
Northeast District
7825 Baymeadows Way
Jacksonville, Florida 32256-3767

Duval County Air Quality Division
421 West Church Street, Suite 412
Jacksonville, Florida 32202-4111

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

5-7-93

① 12:30

Spoke w R. Robinson - pointed
out existing PM problem and
R. Donelan's proposed remedy -
PM w/o 120.57 (pages 3-5).

Ra

RECEIVED

MAY 05 1993

Division of Air Resources Management

FLORIDA PUBLISHING COMPANY
Publisher
JACKSONVILLE, DUVAL COUNTY, FLORIDA

STATE OF FLORIDA }
COUNTY OF DUVAL }

Before the undersigned authority personally appeared _____

Coleman Kane _____ who on oath says that he is

Contract Sales Rep _____ of The Florida Times-Union

a daily newspaper published at Jacksonville in Duval County, Florida; that the
attached copy of advertisement, being a _____ Legal Notice

in the matter of _____ Notice of Intent To Issue
_____ Permit

in the _____ Court,

was published in THE FLORIDA TIMES-UNION in the issues of _____
April 25, 1993

Affiant further says that the said The Florida Times-Union is a newspaper published at Jacksonville, in
said Duval County, Florida, and that the said newspaper has heretofore been continuously published in
said Duval County, Florida, The Florida Times-Union each day, has been entered as second class mail
matter at the postoffice in Jacksonville, in said Duval County, Florida, for a period of one year next
preceding the first publication of the attached copy of advertisement; and affiant further says that he has
neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for
the purpose of securing this advertisement for publication in said newspaper.

Sworn to and subscribed before me

this 29..... day of

April..... A.D. 19 93

[Signature of Vera Janie Likens]

Notary Public,
State of Florida at Large.

[Signature of Coleman Kane]

My Commission Expires.....



VERA JANIE LIKENS
MY COMMISSION # CC 222556 EXPIRES
June 1, 1996
BONDED THRU TROY FAIN INSURANCE, INC.

DA 444

STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL REGULATION
NOTICE OF INTENT TO ISSUE PERMIT

The Department of Environmental Regulation hereby gives notice of its intent to issue permits to Seminole Kraft Corporation, 9469 Eastport Road, Jacksonville, Florida 32229, to construct three package boilers at their facility in Jacksonville, Duval County, Florida. The maximum predicted all sources PSD Class II sulfur dioxide increments which would be consumed after this project is completed are the following: 5.0 ug/m3, annual average, or 25% of the available annual increment of 20 ug/m3, 133 ug/m3, 24-hours average or 146% of the available 24-hour increment of 91 ug/m3, and 447 ug/m3. Seminole Kraft and Cedar Bay combined do not contribute significantly to any predicted violations of the PSD Class II 24-hour increment. The maximum predicted PSD Class I sulfur dioxide increments which would be consumed are the following: 0.0 ug/m3, annual average, or 0% of the available 24-hour increment of 5.0 ug/m3, and 19 ug/m3, 3-hour average or 76% of the available 3-hour increment of 25 ug/m3. A determination of Best Available Control Technology (BACT) was required. The Department is issuing this intent to issue for the reasons stated in the Revised Technical Evaluation and Preliminary Determination.

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

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(b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by Petitioner, if any; (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and, (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

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Department of Environmental Regulation, North East District, 7825 Baymeadows Way, Jacksonville, Florida 32256-3767

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RECEIVED

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

MAY 05 1993

Division of Air
Resources Management

In the Matter of an
application for Permit by:

DER File No.

AC16-222359

PSD-FL-198

OGC File No.

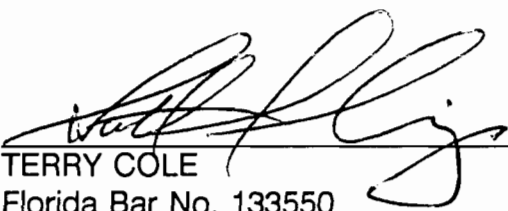
Seminole Kraft Corporation
9469 East Port Road
Jacksonville, Florida 32229

NOTICE OF WITHDRAWAL OF MOTION

Please take notice that Seminole Kraft Corporation hereby withdraws its Motion for Extension of Time for Filing Petition for Formal Administrative Proceedings, filed April 15, 1993. The motion has been rendered moot by the Department's reissuance of a revised permit superceding that previously issued. Seminole Kraft does not intend to challenge the revised permit.

Respectfully submitted,

OERTEL, HOFFMAN, FERNANDEZ
& COLE, P.A.
Post Office Box 6507
Tallahassee, Florida 32314-6507
(904) 877-0099


TERRY COLE
Florida Bar No. 133550

SCOTT SHIRLEY
Florida Bar No. 547158

Attorneys for: Seminole Kraft Corporation

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true copy of the foregoing has been furnished by hand delivery this 5th day of May, 1993, to Richard Donelan, Esquire, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399; and Clair Fancy, Air Division, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.



Attorney

OtherAtt:1003-23.NWM/kj



Seminole Kraft Corporation

Jacksonville Mill

Best Available Copy

9469 Eastport Road
P.O. Box 26998
Jacksonville, Florida 32218-0998

904 751-6400

Fax Number - 904 751-5822

FACSIMILE TRANSMITTAL

Date: 05/03/93

No. of pages: 1
(Excluding this cover sheet)

Time: _____

TO: C. W. Frazier, Chief

Location: Bureau of Air Regulation
Tallahassee, Florida

MESSAGE:

Hand copy to follow. U.S. Mail.

From: W. Joe Eskridge, maa

Phone: (904) 751-6400 Ext. 279

Best Available Copy

FLORIDA PUBLISHING COMPANY
Publisher
JACKSONVILLE, DUVAL COUNTY, FLORIDA

STATE OF FLORIDA
COUNTY OF DUVAL

Before the undersigned authority personally appeared
Coleman Kane who on oath says that he is

Contract Sales Rep of The Florida Times Union

a daily newspaper published at Jacksonville in Duval County, Florida; that the
attached copy of advertisement, being a Legal Notice

in the matter of Notice of Intent To Issue
Permit

in the Court,

was published in THE FLORIDA TIMES-UNION in the issues of
April 25, 1993

Affiant further says that the said The Florida Times-Union is a newspaper published at Jacksonville, in
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said Duval County, Florida, 10c Florida Times-Union each day, has been entered as second class mail
matter at the postoffice in Jacksonville, in said Duval County, Florida, for a period of one year next
preceding the first publication of the attached copy of advertisement; and affiant further says that he has
neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for
the purpose of securing this advertisement for publication in said newspaper.

Sworn to and subscribed before me
this 29 day of

April 29, A.D. 19 93
Notary Public,
State of Florida at Large.

My Commission Expires



VERA JANIE LIKENS
MY COMMISSION # 00 22556 EXPIRES
June 1, 1996
BONDED THROUGH TRUSTEES INSURANCE, INC.

DIA 444

STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL REGULATION
NOTICE OF INTENT TO ISSUE PERMIT
The Department of Environmental Regulation hereby gives notice of its intent to issue permits to Seminole Kraft Corporation, 9409 Eastport Road, Jacksonville, Florida 32229, to construct three package boilers at their facility in Jacksonville, Duval County, Florida. The maximum predicted all sources PSD Class I sulfur dioxide increments which would be consumed after this project is completed are the following: 3.0 ug/m3, annual average, or 25% of the available annual increment of 20 ug/m3, 133 ug/m3, 24-hour average or 146% of the available 24-hour increment of 91 ug/m3, and 447 ug/m3. Seminole Kraft and Cedar Bay combined do not contribute significantly to any predicted violations of the PSD Class I sulfur dioxide increments. The maximum predicted PSD Class I sulfur dioxide increments which would be consumed are the following: 0.6 ug/m3, annual average, or 0% of the available 24-hour increment of 5.0 ug/m3, and 19 ug/m3, 3-hour average or 76% of the available 3-hour increment of 25 ug/m3. A determination of Best Available Control Technology (BACT) was required. The Department is issuing this intent to issue for the reasons stated in the Revised Technical Evaluation and Preliminary Determination.
A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes (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 at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.
The Petition shall contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Government'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; (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and, (g) A statement of the relief sought by petitioner, stating clearly the action petitioner wants the Department to take with respect to the Department's action or proposed action.
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Department of Environmental Regulation, Northeast District, 7225 Baymeadows Way, Jacksonville, Florida 32256-9767
Duval County Air Quality Division, 431 West Church Street, Suite 412, Jacksonville, Florida 32202-4111
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Further, a public hearing can be requested by a persons. Such requests must be submitted within days of this notice.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

RECEIVED

4APT-AEB

APR 19 1993

APR 22 1993

Division of Air
Resources Management

Mr. Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Seminole Kraft Corporation, Duval County
(PSD-FL-198)

Dear Mr. Fancy:

This is to acknowledge receipt of the Technical Evaluation and Preliminary Determination, including the draft Prevention of Significant Deterioration (PSD) permit, for the above referenced facility, by your letter dated March 31, 1993. The existing Seminole Kraft Corporation facility is a 100-percent recycled fiber paper mill. The proposed modification to the existing facility will be the addition of three package boilers, to be fired with fuel oil and natural gas.

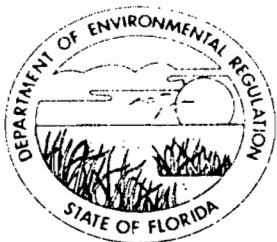
Your determination proposes to limit SO₂ emissions through limiting the sulfur content of the distillate fuel oil and to limit beryllium emissions through efficient combustion and the use of ash free and low ash fuels.

We have reviewed the package as submitted and have no adverse comments. Thank you for the opportunity to review and comment on the package. If you have any questions or comments, please contact either Mr. Lew Nagler for modeling/monitoring or Mr. Scott Davis of my staff at (404) 347-5014.

Sincerely yours,

Brian L. Beals, Chief
Source Evaluation Unit
Air Enforcement Branch
Air, Pesticides, and Toxics
Management Division

cc: J. Reynolds
B. Mitchell
C. Halladay
E. Ahey, NE Dist
R. Robinson, DEAD
J. Bunyak, NPS
R. Collom, BDNR



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

April 20, 1993

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. L. A. Stanley, General Manager
Seminole Kraft Corporation
9469 East Port Road
Jacksonville, Florida 32229

Dear Mr. Stanley:

Attached is one copy of the Revised Technical Evaluation and Preliminary Determination and proposed permit for Seminole Kraft Corporation to construct three gas-fired packaged boilers at their facility in Duval County.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. Preston Lewis of the Bureau of Air Regulation.

Sincerely,

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

CHF/JR/kt

Attachments

cc: J. Cole, NED
R. Roberson, BESD
J. Harper, EPA
J. Bunyak, NPS
D. Buff, KBN
B. Collum, GEPD
C. Hurd, SKC
R. Donelan, OGC

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

CERTIFIED MAIL

In the Matter of an
Application for Permit by:

DER File No. AC16-222359
PSD-FL-198

Seminole Kraft Corporation
9469 East Port Road
Jacksonville, Florida 32229

INTENT TO ISSUE

The Department of Environmental Regulation gives notice of its intent to issue a permit (copy attached) for the proposed project as detailed in the application specified above, for the reasons stated in the attached Revised Technical Evaluation and Preliminary Determination.

The applicant, Seminole Kraft Corporation, applied on November 24, 1992, to the Department of Environmental Regulation for a permit to construct three packaged boilers at their facility in Jacksonville, Duval County, Florida.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Chapters 17-212 and 17-4. The project is not exempt from permitting procedures. The Department has determined that a construction permit is required for the proposed work.

Pursuant to Section 403.815, Florida Statutes and Rule 17-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice shall be published one time only within 30 days in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

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

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

The Petition shall contain the following information;

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
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- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
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- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
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proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



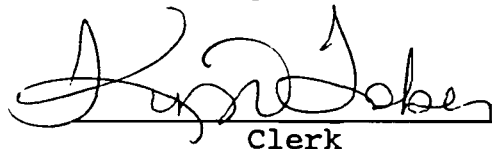
C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this INTENT TO ISSUE and all copies were mailed by certified mail before the close of business on 4-21-93 to the listed persons.

Clerk Stamp

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


Clerk

4-21-93
Date

Copies furnished to:

- J. Cole, NED
- R. Roberson, BESD
- J. Bunyak, NPS
- D. Buff, KBN
- B. Collum, GEPD
- C. Hurd, SKC
- R. Donelan, OGC

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF INTENT TO ISSUE PERMIT

The Department of Environmental Regulation gives notice of its intent to issue a permit to Seminole Kraft Corporation, 9469 East Port Road, Jacksonville, Florida 32229 to construct three packaged boilers at their facility in Jacksonville, Duval County, Florida. The maximum predicted all sources PSD Class II sulfur dioxide increments which would be consumed after this project is completed are the following: 5.0 ug/m³, annual average, or 25% of the available annual increment of 20 ug/m³, 133 ug/m³, 24-hour average or 146% of the available 24-hour increment of 91 ug/m³; and 447 ug/m³, 3-hour average or 87% of the available 3-hour increment of 512 ug/m³. Seminole Kraft and Cedar Bay combined do not contribute significantly to any predicted violations of the PSD Class II 24-hour increment. The maximum predicted PSD Class I sulfur dioxide increments which would be consumed are the following: 0.0 ug/m³, annual average, or 0% of the available annual increment of 2.0 ug/m³; 4.1 ug/m³, 24-hour average or 82% of the available 24-hour increment of 5.0 ug/m³, and 19 ug/m³, 3-hour average or 76% of the available 3-hour increment of 25 ug/m³. A determination of Best Available Control Technology (BACT) was required. The Department is issuing this Intent to Issue for the reasons stated in the Revised Technical Evaluation and Preliminary Determination.

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

The Petition shall contain the following information; (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by Petitioner, if any; (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement of which rules or

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

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

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

Department of Environmental Regulation
Bureau of Air Regulation
111 South Magnolia Drive
Tallahassee, Florida

Department of Environmental Regulation
Northeast District
7825 Baymeadows Way
Jacksonville, Florida 32256-3767

Duval County Air Quality Division
421 West Church Street, Suite 412
Jacksonville, Florida 32202-4111

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

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

Revised
Technical Evaluation
and
Preliminary Determination

Seminole Kraft Corporation
Duval County
Jacksonville, Florida

Three Gas-Fired Packaged Boilers
Permit Number: AC 16-222359
PSD-FL-198

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

April 16, 1993

I. Application

A. Applicant

Seminole Kraft Corporation
9469 East Port Road
Jacksonville, Florida 32229

B. Project/Location/Classification

The Department received a complete application on February 10, 1993, for a permit to construct three packaged boilers at the Seminole Kraft Corporation (SKC) existing facility in Jacksonville, Duval County, Florida. The applicant's recycled fiber paper mill facility (SIC Code 2621) is located at 9469 East Port Road. UTM coordinates of the site are 441.8 km E and 3,365.6 km N.

On April 2, 1993, the Department issued its Intent to Issue package. Since that time, the Cedar Bay Cogeneration Plant project and its Certification process resulted in some negotiated changes, which affected some operational conditions to this project. Consequently, a revised Intent to Issue package has been made.

II. Project Description

Seminole Kraft (SKC) proposes to install three 125,000 lbs/hr packaged steam boilers at their recycled fiber paper mill facility in Jacksonville, Florida, while contemporaneously shutting down several boilers and pulping facilities. SKC's project is tied in with the coal-fired Cedar Bay Cogeneration Project (CBCP), formerly known as AES Cedar Bay, by way of an agreement for SKC to receive a major portion of their process steam from the adjacent CBCP facility. Plans call for the CBCP facility to begin operation in early 1994. SKC requires that the three new packaged boilers be sized to provide enough steam to operate their largest paper machine independently of the CBCP facility during periods when CBCP does not operate.

SKC's conversion to a 100% recycled fiber paper mill was completed in 1992 by shutting down all kraft mill facilities processing virgin wood pulp. The equipment involved in the contemporaneous shutdowns is listed below:

<u>Equipment</u>	<u>Date Shutdown</u>	<u>Date to be Shutdown</u>
Recovery Boiler 1	September '92	-
Recovery Boiler 2	"	-
Recovery Boiler 3	"	-
Smelt Dissolving Tank 1	"	-
Smelt Dissolving Tank 2	"	-
Smelt Dissolving Tank 3	"	-

Lime Kiln 1	"	-
Lime Kiln 2	"	-
Lime Kiln 3	"	-
Slaker No. 3	"	-
Bark Boiler 1	-	Early 1994*
Bark Boiler 2	-	"
Power Boiler 1	-	"
Power Boiler 2	-	"
Power Boiler 3	-	"

*These boilers are required to be taken out of service under provisions of the site certification for CBCP, with creditable emission reduction going to CBCP.

III. Emissions

SKC submitted their application in November 1992, proposing to fire No. 2 fuel oil, with natural gas backup, as they had not been able to obtain a firm natural gas contract. Since then, SKC has obtained a contract for natural gas. Firing of fuel oil, as originally proposed, would result in emissions exceeding PSD significant rates for sulfur dioxide and beryllium, after applying contemporaneous emission reductions from the shutdowns listed above. Filing an application for oil firing triggered application of the Prevention of Significant Deterioration (PSD) rule, thus requiring a determination of Best Available Control Technology (BACT). This is discussed in the rule applicability section. Tabulated below are the emission credits and the actual emissions after application of BACT:

Contemporaneous Emissions Credit (TPY)

Source	CO	PM/PM ₁₀	SO ₂	NOx	VOC	TRS	H ₂ SO ₄
RB #1	1118.5	107.8	3.7	117.5	114.3	7.2	9.5
RB #2	1169.8	156.0	2.8	129.0	185.0	12.3	19.9
RB #3	468.5	129.7	1.2	139.5	36.6	14.0	13.9
LK #1	1.4	3.8	0.1	9.0	2.1	0.2	--
LK #2	10.1	21.6	8.5	41.3	19.1	1.7	--
LK #3	9.9	19.6	6.7	60.2	18.6	1.4	--
SDT #1	--	22.6	2.9	--	--	1.6	--
SDT #2	--	23.8	2.8	--	--	1.8	--
SDT #3	--	36.9	2.9	--	--	1.6	--
Slaker #3	--	0.9	--	--	--	--	--
Totals:	2778.2	522.7	31.6	496.5	375.7	41.8	43.3

Future Emissions (TPY)*

Source	CO	PM/PM ₁₀	SO ₂	NOx	VOC	TRS	H ₂ SO ₄
PB #1	184.2	3.6	-	103.4	0.7	--	negl.
PB #2	184.2	3.6	-	103.4	0.7	--	negl.
PB #3	184.2	3.6	-	103.4	0.7	--	negl.
Totals:	552.6	10.8	25**	310.2	2.1	--	negl.
Net Change:	-2225.6	-511.9	-24.1	-186.3	-373.6	-41.8	-43.3
PSD Level:	100	25/15	40	40	40	10	7

* See the revised BACT Determination for details on calculation of future emissions.

** In the event that the ceiling for SO₂ is expected to be exceeded due to unavailability of natural gas caused by factors beyond the control of SKC, SKC shall notify the Department that it anticipates exceeding the ceiling as provided herein; and, the emissions of SO₂ during the period of such curtailment shall not be counted against the yearly emissions ceiling of 25 tons unless administrative proceedings result in a finding that the exceedance was within SKC's control. In no event shall the total annual emissions of SO₂ from the three steam boilers exceed a ceiling of 41 tons per year.

Future emission were determined on the basis of fuel consumption levels contemplated during CBCP's site certification proceedings; namely, that the SKC packaged boilers would be permitted to operate such that when the SKC facility is importing 380 M lbs/hr of steam (heat equivalent of 456 MMBtu/hr) from CBCP, the SKC packaged boilers would produce 260 M lbs/hr for a total SKC steam production of 640 M lbs/hr. This steam production level is the basis of the modeling that was done for the CBCP facility and therefore is the basis for the allowable emission levels in the Department's proposed permit for the SKC packaged boilers. The 640 M lbs steam/hr is equivalent to a peak fuel consumption level of 354 MMBtu/hr when SKC is receiving 380 M lbs/hr of steam from the CBCP.

IV. Rule Applicability

The proposed project is subject to preconstruction review in accordance with Chapter 403 of the Florida Statutes and Florida Administrative Code (F.A.C.) Chapters 17-210 through 297 and 17-4. The proposed facility will be located in an area classified as attainment for all regulated pollutants except ozone for which the area is designated as a transitional nonattainment area. The federal new source performance standards under 40 CFR Subpart Db (standards of performance for Industrial Steam Generating Units) apply for NOx control. Also, F.A.C. Rule 17-296.406, Fossil Fuel Steam Generators, applies to these boilers requiring a BACT analysis for particulate matter and sulfur dioxide.

As originally filed, the application is subject to the provisions of F.A.C. Rule 17-212.400, Prevention of Significant Deterioration (PSD), because the proposed oil-firing emissions, after applying offsets, would exceed PSD-significant levels for sulfur dioxide and beryllium. Upon applying Best Available Control Technology (BACT) required under the PSD rule, the firing of natural gas as the primary fuel resulted in emissions that are well below PSD-significant levels. This is somewhat unusual in that the application of BACT has resulted in the project netting out of PSD significance. Yet, the proposed facility remains a PSD project since, without application of BACT, the PSD-significant levels would be exceeded.

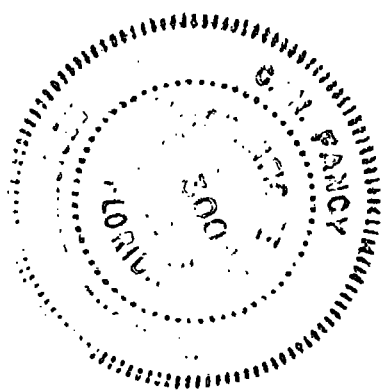
V. AIR QUALITY IMPACT ANALYSIS

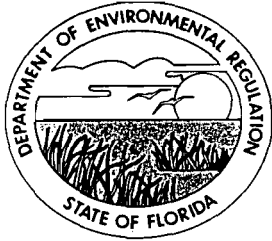
The applicant proposed emissions of sulfur dioxide and beryllium in PSD-significant amounts. The applicant submitted the air quality analysis required by the PSD regulations for these two pollutants. The applicant's SO₂ analysis was based on the proposed full time use of fuel oil with a maximum sulfur content of 0.5 percent (average 0.3 percent). The Department's revised BACT determination requires the use of natural gas instead of fuel oil as a primary fuel. This substantially restricts the emissions of both pollutants. Re-calculation of the emissions from the proposed project after the application of BACT shows that projected emissions of all pollutants are below PSD-significant amount.

Modeling results for full time fuel oil firing show predicted violations of the annual and 24-hour SO₂ ambient air quality standards (AAQS) of 60 ug/m³ and 260 ug/m³ and also of the 24-hour PSD Class II increment of 91 ug/m³. All of these predicted violations occur at a distance of 4.0 to 11.0 km southwest and west of Seminole Kraft. With the applicant's proposed use of 0.5 percent (maximum) sulfur fuel oil, there is one predicted violation of the 24-hour AAQS where Seminole Kraft and Cedar Bay combined contribute significantly to the violation. However, the Department's revised BACT determination restricts Seminole Kraft to the use of fuel oil containing a maximum sulfur content of only 0.05 percent as an emergency fuel when natural gas is unavailable. Modeling results based on the use of 0.05 percent fuel oil show that Seminole Kraft and Cedar Bay do not contribute significantly to this violation of the AAQS. Therefore, the Department has reasonable assurance that the proposed project, as described in the report and subject to the conditions of approval proposed herein, will not cause or contribute to a violation of any AAQS or PSD increment.

VI. Conclusion

Based on the information provided by Seminole Kraft, the Department has reasonable assurance that the proposed installation, as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of any air quality standard, PSD increment, or any other technical provision of Chapters 17-210 thru 297 of the Florida Administrative Code.





Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

PERMITTEE:
Seminole Kraft Corp.
9469 East Port Road
Jacksonville, Florida 32229

Permit Number: AC16-222359
PSD-FL-198
Expiration Date: April 30, 1995
County: Duval
Latitude/Longitude: 30°25'15"N
81°36'00"W
Project: Three Gas-Fired
Packaged Boilers

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

For the construction of three 125,000 lbs/hr packaged process steam boilers. The facility is located at 9469 East Port Road, Jacksonville, Duval County, Florida. UTM coordinates of the site are: Zone 17, 441.8 km E and 3,365.6 km N.

Emissions shall be controlled by using clean fuels and good combustion practices.

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

Attachments are listed below:

1. Letter (with proposed gas contract) from Oertel to Pennington (12/3/92).
2. Letter from KBN to DER (12/9/92).
3. Letter from Georgia DNR to DER (12/10/92).
4. Letter from KBN to DER (12/22/92).
5. Incompleteness letter from DER to SKC (12/23/92).
6. Letter from KBN to DER (12/23/92).
7. Second Incompleteness letter from DER to SKC (1/5/93).
8. Letter from KBN to DER (1/8/93).
9. Letter from EPA to DER (1/15/93).
10. Letter from Oertel to DER (1/19/93).
11. Third Incompleteness letter from DER to SKC (1/25/93).
12. Letter from Oertel to DER (1/29/93).
13. Letter from Oertel to DER (1/29/93).
14. Completeness letter from DER to SKC (2/10/93).

PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC16-222359
PSD-FL-198
Expiration Date: April 30, 1995

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC16-222359
PSD-FL-198
Expiration Date: April 30, 1995

GENERAL CONDITIONS:

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

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

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

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

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

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance,

PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC16-222359
PSD-FL-198
Expiration Date: April 30, 1995

GENERAL CONDITIONS:

provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

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

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

13. This permit also constitutes:

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

14. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
 - the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurements;
 - the dates analyses were performed;
 - the person responsible for performing the analyses;

PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC16-222359
PSD-FL-198
Expiration Date: April 30, 1995

GENERAL CONDITIONS:

- the analytical techniques or methods used; and
- the results of such analyses.

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

SPECIFIC CONDITIONS:

1. The construction and operation of these sources shall be in accordance with the capacities stated in the Revised Technical Evaluation and Preliminary Determination.
2. The packaged boilers may be operated continuously (8760 hrs/yr).
3. The maximum allowable NOx emissions shall not exceed 0.2 lb/MMBtu, 23.6 lbs/hr, and 103.4 tons/yr per boiler.
4. Sulfur content of the No. 2 fuel oil shall not exceed 0.05 percent by weight. Annual SO₂ emissions, total for all three boilers, shall not exceed 25 tons per year. In the event that the ceiling for SO₂ is expected to be exceeded due to unavailability of natural gas caused by factors beyond the control of SKC, SKC shall notify the Department that it anticipates exceeding the ceiling as provided herein; and, the emissions of SO₂ during the period of such curtailment shall not be counted against the yearly emissions ceiling of 25 tons unless administrative proceedings result in a finding that the exceedance was within SKC's control. In no event shall the total annual emissions of SO₂ from the three steam boilers exceed a ceiling of 41 tons per year.
5. Visible emissions (VE) shall not exceed 5% opacity during natural gas firing and 10% opacity during fuel oil firing.
6. In accordance with requirements of 40 CFR 60.48(b), a monitoring system (CEMS) for nitrogen oxides shall be installed, operated, and maintained. Also, the natural gas, fuel oil and steam flows (both from the packaged boilers and from the CBCP facility) shall be metered and continuously recorded. The data shall be logged daily and maintained so that it can be provided to DER upon request.
7. Before this construction permit expires, the common packaged boiler stack shall be tested and monitored for compliance with the emission limits in Specific Conditions No. 4, 5, and 6. Compliance tests for NOx shall be conducted in accordance with 40 CFR

PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC16-222359
PSD-FL-198
Expiration Date: April 30, 1995

SPECIFIC CONDITIONS:

60.46b(e)(3). Compliance with SO₂ limits shall be in accordance with 40 CFR 60.49b(r). Compliance with visible emission limits shall be demonstrated initially and annually in accordance with EPA Method 9.

8. The DER Northeast District office and the RESD (Regulatory and Environmental Services Department) shall be notified at least 15 days prior to the compliance tests. Compliance test results shall be submitted to the DER Northeast District office and the Bureau of Air Regulation office within 45 days after completion of the tests. Sampling facilities, methods, and reporting shall be in accordance with 40 CFR 60.49b, F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A.

9. The following Seminole Kraft Corporation (SKC) sources shall be permanently shut down and made incapable of operation: the No. 1 PB (power boiler), the No. 2 PB, the No. 3 PB, the No. 1 BB (bark boiler), and the No. 2 BB; and, SKC shall turn in their operation permits to the Division of Air Resources Management's Bureau of Air Regulation, within 30 days of written confirmation by DER of the successful completion of the initial compliance tests on the Cedar Bay Cogeneration Plant's boilers. The Regulatory and Environmental Services Division of Jacksonville shall be specifically informed in writing within thirty days after each individual shut down of the above referenced equipment.

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

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

Issued this _____ day
of _____, 1993

**STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION**

Virginia B. Wetherell, Secretary

Revised Best Available Control Technology (BACT) Determination
Seminole Kraft Corporation
Duval County
PSD-FL-198
AC16-222359

The applicant proposes to install three packaged boilers at their recycled fiber paper mill facility in Jacksonville, Duval County, Florida. Each of the three boilers will be sized to provide up to 125,000 lbs/hr of process steam for Seminole Kraft Corporation's (SKC) paper machines. SKC will also receive process steam from the adjacent Cedar Bay Cogeneration Project (CBCP). According to terms of the CBCP Site Certification proceedings, SKC is to be limited to a total steam production of 640,000 lbs/hr which includes 380,000 lbs/hr imported from the CBCP facility. This leaves 260,000 lbs/hr to be produced by the three packaged boilers under normal operating conditions. During periods when CBCP is not operating or operating at reduced rates, SKC will be allowed to make up the difference between the 380,000 lbs/hr and the steam production level that CBCP provides. This is equivalent to a maximum firing rate of 524 MMBTU/hr for all three SKC packaged boilers when the CBCP facility is down.

Date of Receipt of a Complete Application

February 10, 1993

BACT Determination Requested by Applicant

SKC's application called for the firing of fuel oil on a full time or as needed basis since a firm natural gas contract had not been obtained at the time of filing. Consequently, the application required a BACT determination for SO₂ and beryllium since these pollutants would be emitted in amounts exceeding PSD-significant levels. BACT was proposed by the applicant as firing fuel oil with a 0.5 percent maximum sulfur content (0.3 average). Since there are no specific control technologies for beryllium, an uncontrolled beryllium emission level was proposed.

BACT Determination by the Department

During initial permitting discussions with SKC, the Department indicated to them that BACT would require the use of natural gas as the primary fuel, if available. Subsequently, SKC obtained a natural gas contract. Therefore, the Department's determination of BACT is the use of natural gas as the primary fuel and No. 2 fuel oil (0.05% sulfur max.) as backup when natural gas is not available. Allowable emissions under normal operating conditions (i.e. 380,000 lbs/hr steam supplied by CBCP) are listed below for each boiler along with the limit basis:

<u>Pollutant</u>	<u>Emission Limits</u>	<u>Basis</u>
NO _x	23.6 lbs/hr and 103.4 tons/yr	Subpart D _b (0.2 lb/mm BTU)
SO ₂	25 tons/yr total-3 boilers*	BACT (0.05%S)
VE	Natural Gas - 5% opacity	BACT
VE	No. 2 Fuel Oil - 10% opacity	BACT

* In the event that the ceiling for SO₂ is expected to be exceeded due to unavailability of natural gas caused by factors beyond the control of SKC, SKC shall notify the Department that it anticipates exceeding the ceiling as provided herein; and, the emissions of SO₂ during the period of such curtailment shall not be counted against the yearly emissions ceiling of 25 tons unless administrative proceedings result in a finding that the exceedance was within SKC's control. In no event shall the total annual emissions of SO₂ from the three steam boilers exceed a ceiling of 41 tons per year.

BACT Determination Procedure

In accordance with F.A.C. Rules 17-210 through 297, this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department, on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available control methods, systems and techniques. In addition, the regulations require that in making the BACT determination the Department shall give consideration to:

- (a) Any Environmental Protection Agency determination of Best Available Control Technology pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).
- (b) All scientific, engineering and technical material and other information available to the Department.
- (c) The emission limiting standards or BACT determinations of any other State.
- (d) The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to

Revised BACT
Seminole Kraft Corp.
Page Three

determine for the emission source in question the most stringent control available for a similar or identical source or source category. If it is shown that this level of control is technically or economically infeasible for the source in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

BACT Determination Rationale

BACT review for particulate emissions and sulfur-dioxide are required under F.A.C. Rule 17-296.406. Visible emissions may be regulated as a surrogate parameter for PM/PM₁₀ and have been established at 5% opacity for natural gas fired boilers (10% opacity for No. 2 fuel oil).

For SO₂ emissions from oil firing, only two alternatives exist that would result in stringent SO₂ emissions; using low sulfur content fuel oil or flue gas desulfurization (FGD). EPA has recognized that FGD technology is inappropriate to apply to these combustion units. Sludge would be generated that would have to be disposed of properly, and there would be greatly increased costs associated with the construction and operation of a FGD system. Finally, there is no information in the literature to indicate that FGD has ever been applied to burning distillate oil. This leaves the use of natural gas and low sulfur fuel oil as backup as the best option for this project. Due to the anticipated availability of very low sulfur oil by October 1993, the Department will require the use of No. 2 fuel oil with 0.05% sulfur by weight as BACT.

Details of the Analysis May be Obtained by Contacting:

Preston Lewis, P.E., BACT Coordinator
Department of Environmental Regulation
Bureau of Air Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended by:

Approved by:

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

Virginia B. Wetherell, Secretary
Dept. of Environmental Regulation

Date 1993

Date 1993

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3 and 4a or b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write Return Receipt Requested on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. Addressee's Address
2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to
*LA Stanley, Gen Mgr
 Seminole Draft Corp
 9469 E Port Rd
 Jacksonville, FL
 32229*

4. Article Number
P 360 528 705

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

7. Date of Delivery
4/26/93

5. Signature (Addressee)
[Signature]

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

6. Signature (Agent)
[Signature]

PS Form 3811, December 1991 U.S. GPO: 1992-323-402 **DOMESTIC RETURN RECEIPT**

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service

P 360 528 705



Receipt for Certified Mail

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

Send to <i>LA Stanley</i>	
Street and No. <i>Seminole Draft</i>	
P.O., State and ZIP Code <i>Jax, FL</i>	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date <i>AC 16-222359</i> <i>PSD-FI-198</i>	

PS Form 3800, June 1991

DEPARTMENT OF REGULATORY &
ENVIRONMENTAL SERVICES
Air Quality Division

Patty
For Desh...
4/24/93



RECEIVED
APR 20 1993

DIVISION OF AIR
RESOURCES MANAGEMENT

April 16, 1993

Mr. Preston Lewis
Department of Environmental Regulation
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: **Seminole Kraft Corporation**
Three (3) Gas Fired Boilers
Permit AC16-222359 PSD-FL-198

Dear Mr. Lewis:

The Air Quality Division (AQD) has received the above referenced permit and offers the following comments for consideration.

The permit draft has established allowable emissions limits for each individual boiler, but Specific Condition 8., which describes testing requirements for demonstration of compliance does not clearly define how compliance will be demonstrated.

Specific Condition 8. Before this construction permit expires, the common packaged boiler stack shall be tested and monitored for compliance with the emission limits in Specific Condition Nos. 4, 5, and 6. Compliance tests for NO_x shall be conducted in accordance with 40 CFR 60.46b(e)(3). Compliance with SO₂ limits shall be in accordance with 40 CFR 60.49b(r). Compliance with visible emission limits shall be demonstrated initially and annually in accordance with EPA Method 9.

AQD questions the intent of the underlined portion of Specific Condition 8. The condition as it currently reads implies that the common stack is to be tested for each pollutant regulated. Previous conditions limiting regulated pollutants do not state any aggregate or total emission limits. For demonstration of compliance, each boiler should be required to demonstrate that the allowable emission limits can be achieved on an individual basis.

AQD suggests that Specific Condition 8. delete the language "the common packaged boiler stack" and replace it with "each packaged boiler", to clearly indicate that each boiler should be tested individually. AQD does not recommend simultaneous testing of the three packaged boilers for any pollutant other than visible emissions.

Please address any questions or comments to me at (904) 630-3666.

Very truly yours,

Ronald L. Roberson
Associate Engineer

cc: AQD Permitting File
Mr. Wayne Walker - AQD
421 West Church Street - Suite 412
Jacksonville, Florida 32202-4111



cc: G. Reynolds
B. Mitchell
C. Halladay
E. Bray, NED
D. Harper, EPA
D. Bunyak, NPS
R. Colton, GDR

Area Code 904/630-3666

Bruce

~~CHH~~
JB
PL } FYI

I N T E R O F F I C E M E M O R A N D U M

Date: 19-Apr-1993 08:38am EST
From: Dea Wahlen TAL
WAHLEN_D
Dept: Office-General Counsel
Tel No: (904)488-9730
SUNCOM: 278-9730

TO: Ernie Frey JAX
TO: Patty Adams TAL

(FREY E)
(ADAMS_P)

Subject: Seminole Kraft Corporation

On April 15, 1993, we received a motion for extension of time from Terry Cole, counsel, concerning AC16-222359, Seminole Kraft Corporation, referencing the Notice of Intent dated March 31, 1993.

Bruce
FYI

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04/15/1993

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of an
application for Permit by:

DER File No. AC16-222359
PSD-FL-198

OGC File No. _____

Seminole Kraft Corporation,
9469 East Port Road
Jacksonville, FL 32229

MOTION FOR EXTENSION OF TIME TO FILE
PETITION FOR FORMAL ADMINISTRATIVE HEARING

SEMINOLE KRAFT CORPORATION, by and through the undersigned attorney, and pursuant to Rule 17-103.070, F.A.C., hereby requests an extension of time for filing its Petition for Formal Administrative Proceedings, and states as follows:

1. Seminole Kraft has pending before the Department of Environmental Regulation an application for prevention of significant deterioration permit to construct and operate three steam boilers at its recycled papermaking facility in Jacksonville, Florida.

2. On April 2, 1993, Seminole Kraft received an Intent to Issue the above-referenced permits, dated March 31, 1993. Any petition for administrative proceedings in this matter must be filed within fourteen (14) days of receipt of the Notice of Intent to Issue, or April 16, 1993.

3. Subsequent to receipt of the above-referenced Notice of Intent, the parties in a related case concerning the Cedar Bay Cogeneration power plant have entered into a Stipulated Settlement Agreement resolving most of the issues Seminole Kraft

had identified regarding the above-referenced Intent to Issue Permit.

4. On April 14, 1993, the undersigned attorney and a representative of Seminole Kraft met with DER staff responsible for review and issuance of the above-referenced permit. It appears that all issues have been resolved regarding issuance of the permit. However, the Department may be unable to issue a revised Notice of Intent, technical evaluation, and preliminary determination prior to expiration of Seminole Kraft's point of entry to administrative proceedings.

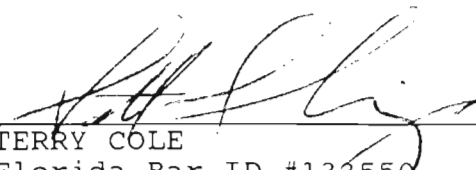
5. The undersigned attorney believes that an additional fourteen (14) days up to and including Friday, April 30, 1993, would be time sufficient to allow the Department to issue its revised evaluation and permit and allow Seminole Kraft time to review the same.

6. On April 14, 1993, the undersigned attorney informed Assistant General Counsel Richard Donelan, currently acting as attorney on the Department's behalf in this matter, that this request for extension of time would be filed. Mr. Donelan acknowledged that such an extension might be necessary and did not register any objection.

WHEREFORE, Seminole Kraft Corporation respectfully requests that the Department enter an order extending the time for filing any petition for formal administrative proceedings in this matter by an additional fourteen (14) days or up to and including April 30, 1993.

Respectfully submitted,

OERTEL, HOFFMAN, FERNANDEZ &
COLE, P.A.
2700 Blair Stone Road, Suite C
Post Office Box 6507
Tallahassee, Florida 32314-6507
(904) 877-0099

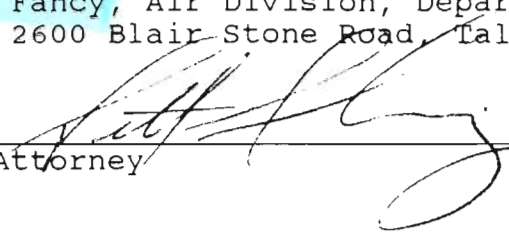


TERRY COLE
Florida Bar ID #133550
SCOTT SHIRLEY
Florida Bar ID #547158

Attorneys for SEMINOLE KRAFT CORPORATION

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true copy of the foregoing has been furnished by hand delivery this 15th day of April, 1993 to Richard Donelan, Esquire, 2600 Blair Stone Road, Tallahassee, Florida 32399; and Clair Fancy, Air Division, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399.



Attorney

SS:cjb/1003-23.ext

RECEIVED

APR 15 1993

Division of Air
Resources Management

Meeting @ Seminole Craft Co. @ 11:30-12:30 4-14-93

@ BAR

Scott Shirley - OHF&C

Craig Hurd - Stone Container Corp, Atlanta, Ga.

Clair Fanny - FDER/DARM/BAR

Richard Dowlan - FDER/OAC

Bruce Mitchell - FDER/DARM/BAR

I N T E R O F F I C E M E M O R A N D U M

Date: 09-Apr-1993 02:01pm EST
From: Sue Sullivan TAL
SULLIVAN_S
Dept: Office of Secretary
Tel No: 904/487-0472
SUNCOM:

TO: Clair Fancy TAL
TO: Bruce Mitchell TAL

(FANCY_C)
(MITCHELL_B)

Subject: Cedar Bay SK conditions

Richard Donelan has gptten a tenative agreement with Seminole Kraft to accept this condition. Richard wants us to wait until he has the final sign off before we change the Conditions of Certification or the SK Permit.

Buck

D. Contemporaneous Emission Reductions

This certification and any individual air permits issued subsequent to the final order of the Board certifying the power plant site under 403.509, F.S., shall require, that the following Seminole Kraft Corporation sources be permanently shut down and made incapable of operation, and shall turn in their operation permits to the Division of Air Resources Management's Bureau of Air Regulation, within 30 days of written confirmation by DEP of the successful completion of the initial compliance tests on the CBCP boilers: the No. 1 PB (power boiler), the No. 2 PB, the No. 3 PB, the No. 1 BB (bark boiler), and the No. 2 BB. RESD shall be specifically informed in writing within thirty days after each individual shut down of the above referenced equipment. Within one year of surrender of operating permits as provided above, SK shall take the following steps to ensure compliance with this condition:

Remove all oil guns
Remove motors and selected conveyor parts in wood feed system for bark boilers
Dismantle stacks
Remove boiler feedwater pumps
Sever fuel line connections
Remove fan motors

These sources shall not, under any circumstances, be restarted, refurbished or re-permitted as new or existing sources, at the SK or CBCP site.

This requirement shall operate as a joint and individual requirement to assure common control for purpose of ensuring that all commitments relied on are in fact fulfilled.

E. SK Steam Boiler Emissions

This certification and any individual air permits issued by the Department subsequent to the final order of the Board certifying the power plant site under Section 403.509, Florida Statutes, shall incorporate the following limitations on the total tonnage of the specified criteria pollutants allowed to be emitted annually by any natural gas-fired boiler or combination of boilers constructed and operated by SK to provide up to 375,000 lbs/hor of steam for use in its recycled paper process:

Tons Per Year

CO 553
NO_x 310
SO₂ 25, except as provided below

In the event that the ceiling for SO₂ is expected to be exceeded due to factors beyond the control of SK, SK may notify the Department that it must exceed the ceiling as provided herein, and

emissions of SO₂ during the period of force majeure curtailment shall not be counted against the yearly emissions ceiling of 25 tons, except that in no event shall the annual emissions of SO₂ from the steam boilers referenced above exceed a ceiling of 41 tons per year. The notice shall include a statement or reasons for the request and supporting documentation. The filing of the notice at least 30 days prior to the date of exceedance, shall preclude any finding of violation for such exceedance by DEP until final disposition of any administrative proceedings thereon.



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Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

March 31, 1993

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. L. A. Stanley, General Manager
Seminole Kraft Corporation
9469 East Port Road
Jacksonville, Florida 32229

Dear Mr. Stanley:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permit for Seminole Kraft Corporation to construct three gas-fired packaged boilers at their facility in Duval County.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. Preston Lewis of the Bureau of Air Regulation.

Sincerely,

C. H. Fancy, P.E.
Chief

Bureau of Air Regulation

CHF/JR/kt

Attachments

cc: J. Cole, NED
R. Roberson, BESD
J. Harper, EPA
J. Bunyak, NPS
D. Buff, KBN
B. Collum, GEPD
C. Hurd, SKC
R. Donelan, OGC

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STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

CERTIFIED MAIL

In the Matter of an
Application for Permit by:

DER File No. AC16-222359
PSD-FL-198

Seminole Kraft Corporation
9469 East Port Road
Jacksonville, Florida 32229

INTENT TO ISSUE

The Department of Environmental Regulation gives notice of its intent to issue a permit (copy attached) for the proposed project as detailed in the application specified above, for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Seminole Kraft Corporation, applied on November 24, 1992, to the Department of Environmental Regulation for a permit to construct three packaged boilers at their facility in Jacksonville, Duval County, Florida.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes and Florida Administrative Code (F.A.C.) Chapters 17-212 and 17-4. The project is not exempt from permitting procedures. The Department has determined that a construction permit is required for the proposed work.

Pursuant to Section 403.815, Florida Statutes and Rule 17-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice shall be published one time only within 30 days in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

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

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

The Petition shall contain the following information;

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

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

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proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



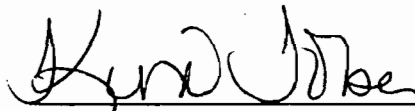
C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this ~~INTENT TO ISSUE~~ and all copies were mailed by certified mail before the close of business on 4-2-93 to the listed persons.

Clerk Stamp

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



Clerk

4-2-93

Date

Copies furnished to:

- J. Cole, NED
- R. Roberson, BESD
- J. Bunyak, NPS
- D. Buff, KBN
- B. Collum, GEPD
- C. Hurd, SKC
- R. Donelan, OGC

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STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION NOTICE OF INTENT TO ISSUE PERMIT

The Department of Environmental Regulation gives notice of its intent to issue a permit to Seminole Kraft Corporation, 9469 East Port Road, Jacksonville, Florida 32229 to construct three packaged boilers at their facility in Jacksonville, Duval County, Florida. A determination of Best Available Control Technology (BACT) was required. No PSD Class I or II increments are consumed by this project. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

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

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

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by

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

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

Department of Environmental Regulation
Bureau of Air Regulation
111 South Magnolia Drive
Tallahassee, Florida

Department of Environmental Regulation
Northeast District
~~7825 Baymeadows Way~~
Jacksonville, Florida 32256-3767

Duval County Air Quality Division
421 West Church Street, Suite 412
Jacksonville, Florida 32202-4111

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

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

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**Technical Evaluation
and
Preliminary Determination**

**Seminole Kraft Corporation
Duval County
Jacksonville, Florida**

**Three Gas-Fired Packaged Boilers
Permit Number: AC 16-222359
PSD-FL-198**

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

March 31, 1993

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I. Application

A. Applicant

Seminole Kraft Corporation
9469 East Port Road
Jacksonville, Florida 32229

B. Project/Location/Classification

The Department received a complete application on February 10, 1993, for a permit to construct three packaged boilers at the applicant's facility in Jacksonville, Duval County, Florida. The applicant's recycled fiber paper mill facility (SIC Code 2621) is located at 9469 East Port Road. UTM coordinates of the site are 441.8 km E and 3,365.6 km N.

II. Project Description

Seminole Kraft (SKC) proposes to install three 125,000 lbs/hr packaged steam boilers at their recycled fiber paper mill facility in Jacksonville, Florida, while contemporaneously shutting down several boilers and pulping facilities. SKC's project is tied in with the coal-fired Cedar Bay Cogeneration Project (CBCP), formerly known as AES Cedar Bay, by way of an agreement for SKC to receive a major portion of their process steam from the adjacent CBCP facility. Plans call for the CBCP facility to begin operation in early 1994. SKC requires that the three new packaged boilers be sized to provide enough steam to operate their largest paper machine independently of the CBCP facility during periods when CBCP does not operate.

SKC's conversion to a 100% recycled fiber paper mill was completed in 1992 by shutting down all kraft mill facilities processing virgin wood pulp. The equipment involved in the contemporaneous shutdowns is listed below:

<u>Equipment</u>	<u>Date Shutdown</u>	<u>Date to be Shutdown</u>
Recovery Boiler 1	September '92	-
Recovery Boiler 2	"	-
Recovery Boiler 3	"	-
Smelt Dissolving Tank 1	"	-
Smelt Dissolving Tank 2	"	-
Smelt Dissolving Tank 3	"	-
Lime Kiln 1	"	-
Lime Kiln 2	"	-
Lime Kiln 3	"	-
Slaker No. 3	"	-
Bark Boiler 1	-	Early 1994*
Bark Boiler 2	-	"
Power Boiler 1	-	"
Power Boiler 2	-	"
Power Boiler 3	-	"

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*These boilers are required to be taken out of service under provisions of the site certification for CBCP, with creditable emission reduction going to CBCP.

III. Emissions

SKC submitted their application in November 1992, proposing to fire No. 2 fuel oil, with natural gas backup, as they had not been able to obtain a firm natural gas contract. Since then, SKC has obtained a contract for natural gas. Firing of fuel oil as originally proposed would result in emissions exceeding PSD significant rates for sulfur dioxide and beryllium, after applying contemporaneous emission reductions from the shutdowns listed above. Filing an application for oil firing triggered application of the Prevention of Significant Deterioration (PSD) rule, thus requiring a determination of Best Available Control Technology (BACT). This is discussed in the rule applicability section. Tabulated below are the emission credits and the actual emissions after application of BACT:

Contemporaneous Emissions Credit (TPY)

Source	CO	PM/PM ₁₀	SO ₂	NOx	VOC	TRS	H ₂ SO ₄
RB #1	1118.5	107.8	3.7	117.5	114.3	7.2	9.5
RB #2	1169.8	156.0	2.8	129.0	185.0	12.3	19.9
RB #3	468.5	129.7	1.2	139.5	36.6	14.0	13.9
LK #1	1.4	3.8	0.1	9.0	2.1	0.2	--
LK #2	10.1	21.6	8.5	41.3	19.1	1.7	--
LK #3	9.9	19.6	6.7	60.2	18.6	1.4	--
SDT #1	--	22.6	2.9	--	--	1.6	--
SDT #2	--	23.8	2.8	--	--	1.8	--
SDT #3	--	36.9	2.9	--	--	1.6	--
Slaker #3	--	0.9	--	--	--	--	--
Totals:	2778.2	522.7	31.6	496.5	375.7	41.8	43.3

Future Emissions (TPY)*

Source	CO	PM/PM ₁₀	SO ₂	NOx	VOC	TRS	H ₂ SO ₄
PB #1	184.2	3.6	2.5	103.4	0.7	--	negl.
PB #2	184.2	3.6	2.5	103.4	0.7	--	negl.
PB #3	184.2	3.6	2.5	103.4	0.7	--	negl.
Totals:	552.6	10.8	7.5	310.2	2.1	--	negl.
Net Change:	-2225.6	-511.9	-24.1	-186.3	-373.6	-41.8	-43.3
PSD Level:	100	25/15	40	40	40	10	7

*See BACT Determination for details on calculation of future emissions.

Future emission were determined on the basis of fuel consumption levels contemplated during CBCP's site certification proceedings; namely, that the SKC packaged boilers would be

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permitted to operate such that when the SKC facility is importing 380 M lbs/hr of steam (heat equivalent of 456 MMBtu/hr) from CBCP, the SKC packaged boilers would produce 260 M lbs/hr for a total SKC steam production of 640 M lbs/hr. This steam production level is the basis of the modeling that was done for the CBCP facility and therefore is the basis for the allowable emission levels in the Department's proposed permit for the SKC packaged boilers. The 640 M lbs steam/hr is equivalent to a peak fuel consumption level of 354 MMBtu/hr when SKC is receiving 380 M lbs/hr of steam from the CBCP. Thus, the SKC boilers, although sized for a total capacity of 524 MMBtu/hr (174.7 MMBtu/hr each), will only be allowed to fire up to 354 MMBtu/hr total, unless the CBCP facility delivers less than 380 M lbs/hr. In that event, the SKC packaged boilers would be allowed to make up the deficit in steam production up to a maximum of 524 MMBtu/hr when the CBCP facility is not providing SKC with any steam. This means that SKC will be allowed to utilize the full capacity of the three packaged boilers (524 MMBtu/hr) only when the CBCP facility is down. This level of production will provide sufficient steam for SKC to operate their largest paper machine during periods when CBCP does not operate.

IV. Rule Applicability

~~The proposed project is subject to preconstruction review in accordance with Chapter 403 of the Florida Statutes and Florida Administrative Code (F.A.C.) Chapters 17-210 through 297 and 17-4. The proposed facility will be located in an area classified as attainment for all regulated pollutants except ozone for which the area is designated as a transitional nonattainment area. The federal new source performance standards under 40 CFR Subpart Db (standards of performance for Industrial Steam Generating Units) apply for NOx control. Also, F.A.C. Rule 17-296.406, Fossil Fuel Steam Generators, applies to these boilers requiring a BACT analysis for particulate matter and sulfur dioxide.~~

As originally filed, the application is subject to the provisions of F.A.C. Rule 17-212.400, Prevention of Significant Deterioration (PSD), because the proposed oil-firing emissions, after applying offsets, would exceed PSD-significant levels for sulfur dioxide and beryllium. Upon applying Best Available Control Technology (BACT) required under the PSD rule, the firing of natural gas as the primary fuel resulted in emissions that are well below PSD-significant levels. This is somewhat unusual in that the application of BACT has resulted in the project netting out of PSD significance. Yet, the proposed facility remains a PSD project since, without application of BACT, the PSD-significant levels would be exceeded.

V. AIR QUALITY IMPACT ANALYSIS

The applicant proposed emissions of sulfur dioxide and beryllium in PSD-significant amounts. The applicant submitted the air quality analysis required by the PSD regulations for these two pollutants. The applicant's SO₂ analysis was based on the proposed full time use of fuel oil with a maximum sulfur content of 0.5 percent (average 0.3 percent). The Department's BACT determination requires the use of natural gas instead of fuel oil as a primary fuel. This substantially restricts the emissions of both pollutants. Re-calculation of the emissions from the proposed project after the application of BACT shows that projected emissions of all pollutants are below PSD-significant amount.

Modeling results for full time fuel oil firing show predicted violations of the annual and 24-hour SO₂ ambient air quality standards (AAQS) of 60 ug/m³ and 260 ug/m³ and also of the 24-hour PSD Class II increment of 91 ug/m³. All of these predicted violations occur at a distance of 4.0 to 11.0 km southwest and west of Seminole Kraft. With the applicant's proposed use of 0.5 percent (maximum) sulfur fuel oil, there is one predicted violation of the 24-hour AAQS where Seminole Kraft and Cedar Bay combined contribute significantly to the violation. However, the Department's BACT determination restricts Seminole Kraft to the use of fuel oil containing a maximum sulfur content of only 0.05 percent as an emergency fuel (800 hours or less per year) when natural gas is unavailable. Modeling results based on the use of 0.05 percent fuel oil show that Seminole Kraft and Cedar Bay do not contribute significantly to this violation of the AAQS. Therefore, the Department has reasonable assurance that the proposed project, as described in the report and subject to the conditions of approval proposed herein, will not cause or contribute to a violation of any AAQS or PSD increment.

VI. Conclusion

Based on the information provided by Seminole Kraft, the Department has reasonable assurance that the proposed installation, as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of any air quality standard, PSD increment, or any other technical provision of Chapters 17-210 thru 297 of the Florida Administrative Code.





Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

PERMITTEE:
Seminole Kraft Corp.
9469 East Port Road
Jacksonville, Florida 32229

Permit Number: AC16-222359
PSD-FL-198
Expiration Date: March 31, 1994
County: Duval
Latitude/Longitude: 30°25'15"N
81°36'00"W
Project: Three Gas-Fired
Packaged Boilers

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

For the construction of three 125,000 lbs/hr packaged process steam boilers. The facility is located at 9469 East Port Road, Jacksonville, Duval County, Florida. UTM coordinates of the site are: Zone 17, 441.8 km E and 3,365.6 km N.

Emissions shall be controlled by using clean fuels and good combustion practices.

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

Attachments are listed below:

1. Letter (with proposed gas contract) from Oertel to Pennington (12/3/92).
2. Letter from KBN to DER (12/9/92).
3. Letter from Georgia DNR to DER (12/10/92).
4. Letter from KBN to DER (12/22/92).
5. Incompleteness letter from DER to SKC (12/23/92).
6. Letter from KBN to DER (12/23/92).
7. Second Incompleteness letter from DER to SKC (1/5/93).
8. Letter from KBN to DER (1/8/93).
9. Letter from EPA to DER (1/15/93).
10. Letter from Oertel to DER (1/19/93).
11. Third Incompleteness letter from DER to SKC (1/25/93).
12. Letter from Oertel to DER (1/29/93).
13. Letter from Oertel to DER (1/29/93).
14. Completeness letter from DER to SKC (2/10/93).

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PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC16-222359
PSD-FL-198
Expiration Date: March 31, 1994

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any ~~injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.~~ This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

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PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC16-222359
PSD-FL-198
Expiration Date: March 31, 1994

GENERAL CONDITIONS:

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

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

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

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

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

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

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance,

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PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC16-222359
PSD-FL-198
Expiration Date: March 31, 1994

GENERAL CONDITIONS:

provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

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

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

13. This permit also constitutes:

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

14. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
 - the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurements;
 - the dates analyses were performed;
 - the person responsible for performing the analyses;

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PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC16-222359
PSD-FL-198
Expiration Date: March 31, 1994

GENERAL CONDITIONS:

- the analytical techniques or methods used; and
- the results of such analyses.

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

SPECIFIC CONDITIONS:

1. The construction and operation of these sources shall be in accordance with the capacities stated in the Technical Evaluation and Preliminary Determination.
2. The packaged boilers may be operated continuously (8760 hrs/yr) according to the limits specified in Specific Condition No. 3.
3. Only natural gas shall be fired in the boilers except during periods of gas curtailment when No. 2 fuel oil may be fired for no more than 800 hours per year. The maximum total heat input to the three boilers shall not exceed 354 MMBtu/hr unless the adjacent Cedar Bay facility fails to provide the permittee with steam in which case the total heat input shall not exceed 524 MMBtu/hr. In no case shall the total steam production of the three packaged boilers plus the steam imported from the Cedar Bay facility exceed 640,000 lbs/hr.
4. The maximum allowable NO_x emissions shall not exceed 0.2 lb/MMBtu, 23.6 lbs/hr, and 103.4 tons/yr per boiler.
5. Sulfur content of the No. 2 fuel oil shall not exceed 0.05 percent by weight. Annual SO₂ emissions shall not exceed 2.5 tons per year per boiler.
6. Visible emissions (VE) shall not exceed 5% opacity during natural gas firing and 10% opacity during fuel oil firing.
7. In accordance with requirements of 40 CFR 60.48(b), a monitoring system (CEMS) for nitrogen oxides shall be installed, operated, and maintained. Also, the natural gas, fuel oil and steam flows (both from the packaged boilers and from the CBCP facility) shall be metered and continuously recorded. The data shall be logged daily and maintained so that it can be provided to DER upon request.

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PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC16-222359
PSD-FL-198
Expiration Date: March 31, 1994

SPECIFIC CONDITIONS:

8. Before this construction permit expires, the common packaged boiler stack shall be tested and monitored for compliance with the emission limits in Specific Conditions No. 4, 5, and 6. Compliance tests for NOx shall be conducted in accordance with 40 CFR 60.46b(e)(3). Compliance with SO₂ limits shall be in accordance with 40 CFR 60.49b(r). Compliance with visible emission limits shall be demonstrated initially and annually in accordance with EPA Method 9.

9. The DER Northeast District office and the RESD (Regulatory and Environmental Services Department) shall be notified at least 30 days prior to the compliance tests. Compliance test results shall be submitted to the DER Northeast District office and the Bureau of Air Regulation office within 45 days after completion of the tests. Sampling facilities, methods, and reporting shall be in accordance with 40 CFR 60.49b, F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A.

10. The following Seminole Kraft Corporation (SKC) sources shall be permanently shut down and made incapable of operation: the No. 1 PB (power boiler), the No. 2 PB, the No. 3 PB, the No. 1 BB (bark boiler), and the No. 2 BB; and, SKC shall turn in their operation permits to the Division of Air Resources Management's Bureau of Air Regulation, within 30 days of written confirmation by DER of the successful completion of the initial compliance tests on the Cedar Bay Cogeneration Plant's boilers. The Regulatory and Environmental Services Division of Jacksonville shall be specifically informed in writing within thirty days after each individual shut down of the above referenced equipment. This requirement shall operate as a joint and individual requirement to assure common control for purpose of ensuring that all commitments relied on are in fact fulfilled.

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

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

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PERMITTEE:
Seminole Kraft Corp.

Permit Number: AC16-222359
PSD-FL-198
Expiration Date: March 31, 1994

Issued this _____ day
of _____, 1993

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Virginia B. Wetherell, Secretary

Best Available Copy

Best Available Control Technology (BACT) Determination
Seminole Kraft Corporation
Duval County
PSD-FL-198
AC16-222359

The applicant proposes to install three packaged boilers at their recycled fiber paper mill facility in Jacksonville, Duval County, Florida. Each of the three boilers will be sized to provide up to 125,000 lbs/hr of process steam for Seminole Kraft Corporation's (SKC) paper machines. SKC will also receive process steam from the adjacent Cedar Bay Cogeneration Project (CBCP). According to terms of the CBCP Site Certification proceedings, SKC is to be limited to a total steam production of 640,000 lbs/hr which includes 380,000 lbs/hr imported from the CBCP facility. This leaves 260,000 lbs/hr to be produced by the three packaged boilers under normal operating conditions. During periods when CBCP is not operating or operating at reduced rates, SKC will be allowed to make up the difference between the 380,000 lbs/hr and the steam production level that CBCP provides. This is equivalent to a maximum firing rate of 524 MMBTU/hr for all three SKC packaged boilers when the CBCP facility is down.

Date of Receipt of a Complete Application

February 10, 1993

BACT Determination Requested by Applicant

SKC's application called for the firing of fuel oil on a full time or as needed basis since a firm natural gas contract had not been obtained at the time of filing. Consequently, the application required a BACT determination for SO₂ and beryllium since these pollutants would be emitted in amounts exceeding PSD-significant levels. BACT was proposed by the applicant as firing fuel oil with a 0.5 percent maximum sulfur content (0.3 average). Since there are no specific control technologies for beryllium, an uncontrolled beryllium emission level was proposed.

BACT Determination by the Department

During initial permitting discussions with SKC, the Department indicated to them that BACT would require the use of natural gas as the primary fuel, if available. Subsequently, SKC obtained a natural gas contract. Therefore, the Department's determination of BACT is the use of natural gas for of 7,960-8,760 hours per year and No. 2 fuel oil (0.05% sulfur max.) as backup for the difference of 800 hours per year if natural gas is not available. Allowable emissions under normal operating conditions (i.e. 380,000 lbs/hr steam supplied by CBCP) are listed below for each boiler along with the limit basis:

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BACT
Seminole Kraft Corp.
Page Two

<u>Pollutant</u>	<u>Emission Limits</u>	<u>Basis</u>
NO _x	23.6 lbs/hr and 103.4 tons/yr	Subpart D _b (0.2 lb/mm BTU)
SO ₂	0.3 lbs/hr and 2.5 tons/yr	BACT (0.05%S)
VE	Natural Gas - 5% opacity	BACT
VE	No. 2 Fuel Oil - 10% opacity	BACT

BACT Determination Procedure

In accordance with F.A.C. Rules 17-210 through 297, this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department, on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available control methods, systems and techniques. In addition, the regulations require that in making the BACT determination the Department shall give consideration to:

- (a) Any Environmental Protection Agency determination of Best Available Control Technology pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).
- (b) All scientific, engineering and technical material and other information available to the Department.
- (c) The emission limiting standards or BACT determinations of any other State.
- (d) The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine for the emission source in question the most stringent control available for a similar or identical source or source category. If it is shown that this level of control is technically or economically infeasible for the source in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

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BACT
Seminole Kraft Corp.
Page Three

BACT Determination Rationale

BACT review for particulate emissions and sulfur-dioxide are required under F.A.C. Rule 17-296.406. Visible emissions may be regulated as a surrogate parameter for PM/PM₁₀ and have been established at 5% opacity for natural gas fired boilers (10% opacity for No. 2 fuel oil).

For SO₂ emissions from oil firing, only two alternatives exist that would result in stringent SO₂ emissions; using low sulfur content fuel oil or flue gas desulfurization (FGD). EPA has recognized that FGD technology is inappropriate to apply to these combustion units. Sludge would be generated that would have to be disposed of properly, and there would be greatly increased costs associated with the construction and operation of a FGD system. Finally, there is no information in the literature to indicate that FGD has ever been applied to burning distillate oil. This leaves the use of natural gas and low sulfur fuel oil as backup as the best option for this project. Due to the anticipated availability of very low sulfur oil by October 1993, the Department will required the use of No. 2 fuel oil with 0.05% sulfur by weight as BACT.

Details of the Analysis May be Obtained by Contacting:

Preston Lewis, P.E., BACT Coordinator
Department of Environmental Regulation
Bureau of Air Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended by:

Approved by:

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

Virginia B. Wetherell, Secretary
Dept. of Environmental Regulation

Date 1993

Date 1993

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Attachments Available Upon Request

SENDER:

- Complete items 1 and/or 2 for additional services
- Complete items 3 and 4a & b
- Print your name and address on the reverse of this form so that we can return this card to you
- Attach this form to the front of the mailpiece, or on the back if space does not permit
- Write "Return Receipt Requested" on the mailpiece below the article number
- The Return Receipt will show to whom the article was delivered and the date delivered

also wish to receive the following services (for an extra fee):

- Addressee's Address
- Restricted Delivery
Consult postmaster for fee.

3. Article Addressed to:
 CA Stanley GM
 Semirule Craft 649
 9469 E Port Rd
 Jacksonville, FL 32229

4a. Article Number
 P 710 058 520

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

7. Date of Delivery

5. Signature (Addressee)

6. Signature (Agent)
 [Signature] 4-2-93

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

PS Form 3811, December 1991 U.S. GPO: 1992-323-402 **DOMESTIC RETURN RECEIPT**

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service

P 710 058 520



Certified Mail Receipt

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

PS Form 3800, June 1990

Sent to	CA Stanley
Street & No.	Semirule Craft
P.O., State & ZIP Code	JAX, FL
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Address of Delivery	
TOTAL Postage & Fees	\$
Postmark or Date	4-2-93
	AC 16-222359
	PSD-F1-198



Stone Container Corporation

Technology and Engineering

Containerboard and Paper Division

1879 Lakeside Parkway
Suite 300
Tucker, Georgia 30084

TELEFAX MESSAGE

404 621-6700
404 621-6788 Fax

DATE: Feb-11, 1993

FROM: Curt Barton

PHONE # 404/621-

TO: John Reynolds

FAX # 904 922 0979

Number of Pages 2 (including cover page)

Message:

John

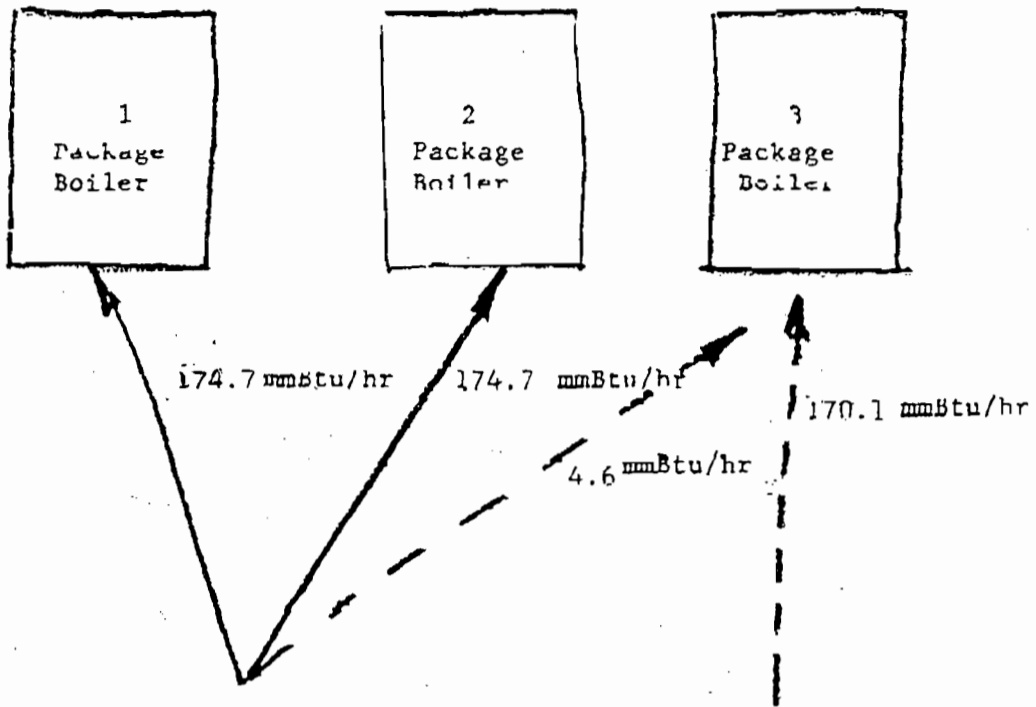
Here is diagram I indicated we would send we will call to discuss or when your ready call

At talk 404 621 6704

Handling Instructions: TOP PRIORITY NORMAL PROCESSING

OTHER: _____

SEMINOLE KRAFT

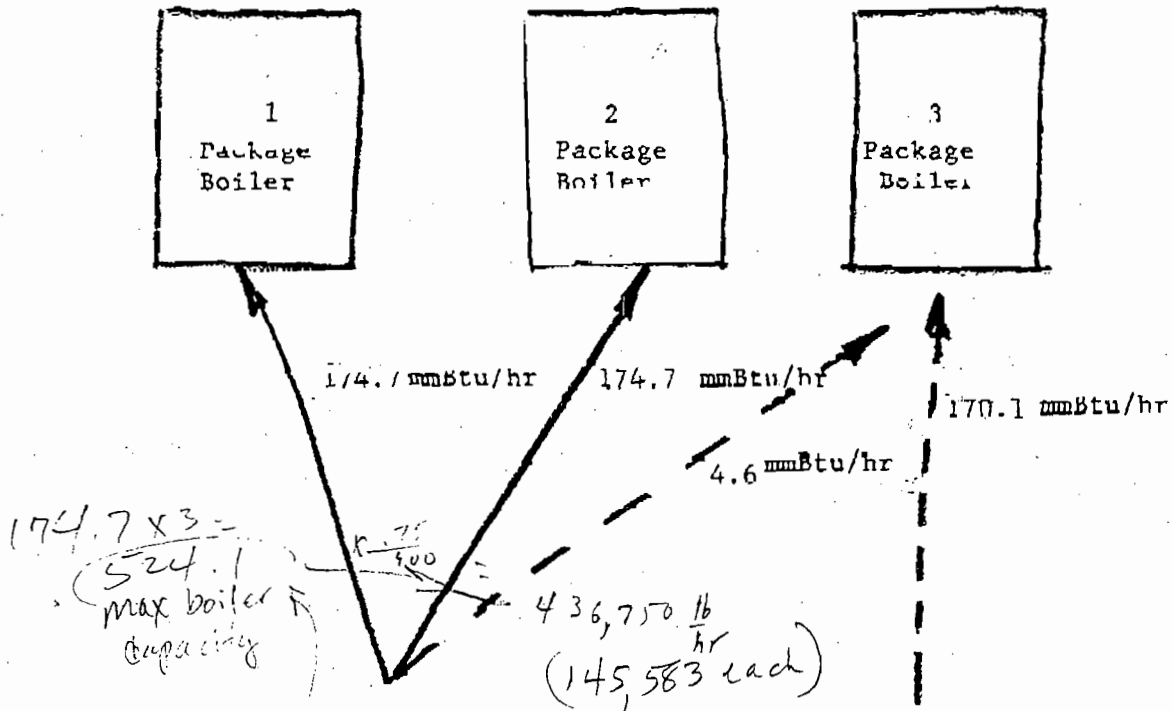


Total gas Contracted - 354 mmBtu/hr (1)
 Interstate Line - Firm Transportation (2)
 Peoples Gas - Interruptible Transport (2&3)

Gas from Peoples-If Available-
 on 48 hours notice

- (1) Peak requirement when receiving 380,000#/hr
 Steam from Cedar Bay. When Cedar Bay does not supply 380,000#/hr, all three
 package boilers must operate. They are capable of supporting the
 operation of Seminole's largest paper machine with -0- steam from
 Cedar Bay.
- (2) Subject to force majeure
- (3) Mainly weather related

SEMINOLE KRAFT



Total gas Contracted 354 mmBtu/hr (1)
 Interstate Line - Firm Transportation (2)
 Peoples Gas - interruptible Transport (200)

Gas from Peoples-If Available-
 on 48 hours notice

This is superseded by copy of contract showing 440 mmBtu/hr.

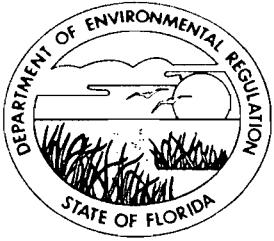
$\frac{354}{3} = 118 \text{ mmBtu/hr}$

$354 \text{ mmBtu/hr} \times \frac{16}{900 \text{ BTU}} \times 2.75 = 295,000$
 $\frac{380,000 \text{ Cedar Bay}}{675,000 \text{ vs. } 640,000}$

$380,000 \frac{\text{lb}}{\text{hr}} \times \frac{900 \text{ BTU}}{16} \times \frac{1}{2.75} = 456 \text{ mmBtu/hr HEAT EQUIVALENT OF C.B. STEAM}$

PEAK (BASE) LOAD $\frac{456}{+ 354} = 810 \text{ mm TOTAL WHEN CB NOT OPERATING}$
 $- 524 \text{ TOTAL FOR 3 PACKAGE BOILERS}$
 $\frac{286 \text{ DEFICIT.}}$

- (1) Peak requirement when receiving 380,000#/hr Steam from Cedar Bay. When Cedar Bay does not supply 380,000#/hr, all three package boilers must operate. They are capable of supporting the operation of Seminole's largest paper machine with -0- steam from Cedar Bay.
- (2) Subject to force majeure
- (3) Mainly weather related



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

February 10, 1993

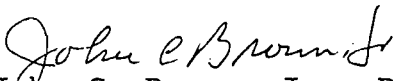
CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. L. A. Stanley, General Manager
Seminole Kraft Corporation
9469 East Port Road
Jacksonville, Florida 32229

Dear Mr. Stanley:

Seminole Kraft requested confirmation of completeness of their permit application (AC16-222359, PSD-FL-198, New Package Boilers). Since this permit requires application of Best Available Control Technology (BACT), the Department had requested additional information on availability of natural gas as the primary fuel. Since Terry Cole confirmed today by phone that a natural gas contract has been obtained, the Department will consider the application complete as of today, February 10, 1993.

Sincerely,


John C. Brown, Jr., P.E.
Administrator
Air Permitting & Standards

JB/JR/ms

cc: J. Cole, NED
B. Oven, O/Sec.
R. Roberson, BESD
C. Hurd, SKC
J. Harper, EPA
D. Buff, KBN
B. Mitchell, NPS
T. Cole, OHF&C

PS Form 3811, November 1990 U.S. GPO: 1991-287-066 **DOMESTIC RETURN RECEIPT**

INSTRUCTIONS:

- Complete items 1 and/or 2 for additional services.
- Complete items 3 and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt Fee will provide you the signature of the person delivered to and the date of delivery.

I also wish to receive the following services (for an extra fee):

- Addressee's Address
- Restricted Delivery
Consult postmaster for fee.

3. Article Addressed to:
*L. A. Stanley, Gen. Mgr.
 Seminole Natl. Corp.
 9469 E. Post Rd. 26998
 Jacksonville, FL 32229
 32226-3229*

4a. Article Number:
062 921 968

4b. Service Type:
 Registered Insured
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<i>RSD-FI-198</i>	

PS Form 3800, June 1991

OERTEL, HOFFMAN, FERNANDEZ & COLE, P. A.

Patty file
John K *JR Hon*
Copy

ATTORNEYS AT LAW

SUZANNE BROWNLESS
M. CHRISTOPHER BRYANT
R. L. CALEEN, JR.
C. ANTHONY CLEVELAND
TERRY COLE
ROBERT C. DOWNIE, II
SEGUNDO J. FERNANDEZ
KENNETH F. HOFFMAN
NORMAN H. HORTON, JR.
KENNETH G. OERTEL
PATRICIA A. RENOVITCH
SCOTT SHIRLEY
THOMAS G. TOMASELLO
W. DAVID WATKINS

SUITE C
2700 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301

TELEPHONE (904) 877-0099
FACSIMILE (904) 877-0981

JOHN H. MILLICAN
ENVIRONMENTAL CONSULTANT
(NOT A MEMBER OF THE FLORIDA BAR)

MAILING ADDRESS:
POST OFFICE BOX 6507
TALLAHASSEE, FLORIDA 32314-6507

RECEIVED

J. P. SUBRAMAN, Ph. D., P. E.
ENVIRONMENTAL CONSULTANT
(NOT A MEMBER OF THE FLORIDA BAR)

JAN 23 1993

January 29, 1993

Division of Air
Resources Management

BY HAND DELIVERY

Mr. John C. Brown, Jr., P.E.
Administrator, Air Permitting & Standards
Florida DER, Room 310
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE Seminole Kraft Corporation Construction
Permit Application for Three Package Boilers

Dear Mr. Brown:

As we promised, this will update the Department on the status of Seminole Kraft's attempts to obtain natural gas as a primary fuel for the proposed three new power boilers. A meeting was held on January 25, 1993, with officials from Peoples Gas to attempt to finalize an agreement for transportation of natural gas to Seminole Kraft.

As a result of that meeting, an agreement in substance has been reached between Seminole Kraft, Peoples Gas and the other interstate carriers. There will be a contract for firm capacity on the interstate pipeline segments and interruptible capacity for the Peoples Gas segment.

The contracts are being prepared by attorneys for the companies to reflect the agreements reached at the meeting. We anticipate having a signed contract by February 15 and will furnish a copy to the Department.

This will also respond to your letter of January 25, 1993, regarding an additional completeness item. While we believe the application to be complete and the questions regarding natural gas to not be relevant to an application involving fuel oil, we will respond since we anticipate amending the application to use natural gas as a primary fuel anyway. In regard to Item 2, natural gas is available. The issue is capability of transporting the gas to the Seminole Kraft site. Interstate pipeline capacity is available, but Peoples Gas capacity is limited. The issue is the degree of interruption in service during certain peak periods of use. As discussed above, we

John C. Brown, Jr., P.E.
January 29, 1993
Page 2

believe those issues are now resolved in principle and only need to be reduced to writing in a contract. This is the best that the question can be answered.

We would appreciate the Department confirming that in the meantime the application is complete. We would also request the date upon which the permit was determined complete. (We do not view the natural gas issue as being a completeness issue, but as something to be addressed as to final permit questions.)

Disagree!
Aph

If we can do anything else to expedite processing and issuance of the permit, please let us know. We appreciate the way the Department has expedited the matter to date.

Sincerely,

Terry Cole
Terry Cole

c: John Reynolds
Clair Fancy
Richard Donelan

Best Available Copy

Department of Environmental Regulation
Routing and Transmittal Slip

To: (Name, Office, Location)

- 1. Richard Donlon
- 2.
- 3.
- 4.

Remarks:

As part of the SKC's phy boiler evaluation, contingency emissions credits were requested (see attached Tables), which is a project that I have been evaluating. The attached proposed letter is the result of my evaluation. Chair will not sign without your blessing.

Please review and advise. If OK, please say so. Call me for pick-up. Thanks,

Bruce

P.S. Please say hello to Cindy.

OK RTO
11/28/93

From

Bruce Mitchell

Date

1-28-93

Phone

8-1344

CHF Signed 1-28-93
mailed 1-29-93
RDR

Things we discussed at . . .



TREASURE ISLAND INN

1/27

Bruce -

Is it necessary to
send this out? Did they
ask for letter? Has Richard
Donlan said OK on it? I
cant sign anything on Semitz
or AES unless Donlan has
said it is OK - Clair

1-26-93

Clair,

The result of a project
that I have been working on
since Sept '90; and, is tied
into the SKC project of
3 new pkg. boilers (F. Reynolds
project).

Thanks,

P.S. I have kept F. Reynolds
updated on this project. *Br*

P 062 921 962



Receipt for Certified Mail

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Street and No. <i>Samuel Kraft</i>	
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<i>1-3 LK</i>	
<i>1-3 RB</i>	
<i>1-3 SDT</i>	
<i>No. 3 Staker</i>	

PS Form 3800, June 1991



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

January 28, 1993

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. L. A. Stanley
 General Manager
 Seminole Kraft Corporation
 9469 Eastport Road
 Jacksonville, Florida 32218-0998

Dear Mr. Stanley:

Re: Contemporaneous Emissions Credit Evaluation

The Department has reviewed documents regarding the issue of contemporaneous emissions credit for the Nos. 1-3 Lime Kilns (LK), the Nos. 1-3 Recovery Boilers (RB), the Nos. 1-3 Smelt Dissolving Tanks (SDT), and the No. 3 Slaker. Based on the review, the following credits are granted for a five year period beginning September 11, 1992, which is the date that the operation permits were surrendered to the Department's Northeast District office:

Table 1

Contemporaneous Emissions Credit (TPY)

Source	CO	PM	SO ₂	NO _x	VOC	TRS	H ₂ SO ₄
RB #1	1118.5	107.8	3.7	117.5	114.3	7.2	9.5
RB #2	1169.8	156.0	2.8	129.0	185.0	12.3	19.9
RB #3	468.5	129.7	1.2	139.5	36.6	14.0	13.9
LK #1	1.4	3.8	0.1	9.0	2.1	0.2	--
LK #2	10.1	21.6	8.5	41.3	19.1	1.7	--
LK #3	9.9	19.6	6.7	60.2	18.6	1.4	--
SDT #1	--	22.6	2.9	--	--	1.6	--
SDT #2	--	23.8	2.8	--	--	1.8	--
SDT #3	--	36.9	2.9	--	--	1.6	--
Slaker #3	--	0.9	--	--	--	--	--
Ttl:	2778.2	522.7	31.6	496.5	375.7	41.8	43.3

Note:

o Bold print denotes a different result between the Department's Bureau of Air Regulation and both tables designated Table I and Table 3-6 (attached);

Mr. L. A. Stanley
Contemporaneous Emissions Credit
January 28, 1993
Page 2

Note cont.

o Table abbreviations:

CO: Carbon Monoxide
PM: Particulate Matter
SO₂: Sulfur Dioxide
NO_x: Nitrogen Oxides
VOC: Volatile Organic Compounds
TRS: Total Reduced Sulfur
H₂SO₄: Sulfuric Acid Mist

o Average annual hours of operation used in the calculations:

<u>Source</u>	<u>1990</u>	<u>1991</u>	<u>avg.</u>
RB #1	8000	8322	8161
RB #2	8085	8140	8112.5
RB #3	7919	8347	8133
LK #1	1500	840	1170
LK #2	7695	7769	7732
LK #3	7618	7577	7597.5
SDT #1	8000	8322	8161
SDT #2	8085	8140	8112.5
SDT #3	7919	8347	8133
Slaker #3	7808	7823	7815.5

Note: Values based on the 1990 and 1991 AORs.

o Where values differ, the following "lbs/hr" values were used to calculate the Table's values and are based on the raw data taken from the various reports submitted for the evaluation (note: the majority of differences are due to rounding-off):

<u>Source</u>	<u>CO</u>	<u>SO₂</u>	<u>VOC</u>
RB #1	274.1	0.92	28.0
RB #2	288.4	0.68	45.6
RB #3		0.29	

Note: Values were calculated using:

$$\text{lbs/hr} = \frac{\text{ppm/1} \times 10^6 \times \text{lb-mole/385 ft}^3 \times \text{MW-lbs/lb-mole} \times \text{dscfm}}{60 \text{ min/hr}} \times$$

MW (molecular weight): CO - 28
SO₂ - 64
VOC - 60, as propanol

Mr. L. A. Stanley
Contemporaneous Emissions Credit
January 28, 1993
Page 3

The following table will display available contemporaneous emissions credit for other pollutants not contained in Table 1 and may differ from those values contained in Table II (attached), which was submitted for the evaluation. As was submitted, the values are the sum of the emission results from tests conducted on the Nos. 1-3 RBs. However, if a pollutant was not detected in at least 6 of the 9 test runs, then the test results were deemed inconclusive and not considered acceptable; and, therefore, no credit will be granted (i.e., a "0" will be used).

Table 2

Contemporaneous Emissions Credit

<u>Pollutant</u>	<u>lbs/yr</u>
Barium	0
Chromium	19.5
Copper	13.5
Manganese	64.3
Mercury	0
Nickel	0
Phosphorus	171.7
Silver	0
Zinc	291.4

Note:

- o For barium, 7 of 9 test results were "0".
- o For mercury, 7 of 9 test results were "0".
- o For nickel, 7 of 9 test results were "0".
- o For phosphorus, the No. 3 RB's 3rd test run was considerably out of tolerance (4-7 times the other values) and was rejected.
- o For silver, 8 of 9 test results were "0".

Attachments:

- o Mr. L. A. Stanley's letter with attachments received September 2, 1992.
- o Mr. L. A. Stanley's letter with enclosures received September 11, 1992, by the Department's Northeast District.
- o Me. W. Joe Eskridge's letter with attachments dated September 28, 1992.
- o Mr. W. Joe Eskridge's letter with attachment received October 2, 1992.
- o Mr. W. Joe Eskridge's letter with enclosures received January 1, 1993, via FAX.
- o Mr. W. Joe Eskridge's letter received January 22, 1993, via FAX.

Mr. L. A. Stanley
Contemporaneous Emissions Credit
January 28, 1993
Page 4

Attachments cont.

- o Table I
- o Table 3-6
- o Table II

If there are any questions, please call Mr. Bruce Mitchell at (904)488-1344 or write to me at the above address.

Sincerely,



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

CHF/BM/rbm

Attachments

cc: A. Kutyna, NED
R. Roberson, DCAQD
J. Braswell, Esq., DER
R. Donelan, Esq., DER
M. Riddle, SKC
J. Eskridge, SKC

Attachments

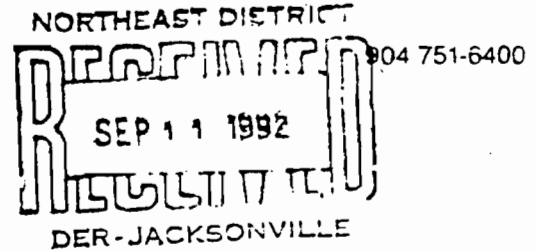


Seminole Kraft Corporation

Jacksonville Mill

9469 Eastport Road
P.O. Box 26998
Jacksonville, Florida 32218-0998

September 10, 1992



Mr. Ernie Frey
Department of Environmental Regulation
3426 Bills Road
Jacksonville, FL 32207

Dear Mr. Frey:

In accordance with Consent Order 88-12385 9.A.1.b., 9.A.3.b, and 9.A.4.b., the permits are being surrendered to you. This equipment was shut down on September 10, 1992.

The Smelt Dissolving Tanks have been rendered inoperable as required by Section 9.A.2.b.

Should you have any questions, please call Mike Riddle at 751-6400, ext. 252.

Sincerely,

L.A. Stanley
General Manager

ah

enclosures

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Division of
Resources Management



TABLE I - AVERAGE TONS/YEAR

	Carbon Monoxide (CO)	Particulate Matter (PM) (c)	Sulfur Dioxide (SO ₂)	Nitrogen Oxides (NO _x) (e)	Volatile Organic Compounds (VOC)	Total Reduced Sulfur (TRS) (c)	Sulfuric Acid (H ₂ SO ₄) (a)
Recovery Boiler 1	1141 (a)	108	4 (a)	120	114 (a)	7	10
Recovery Boiler 2	1173 (a)	156	3 (a)	129	193 (a)	12	20
Recovery Boiler 3	481 (a)	130	1 (a)	143	38 (a)	14	14
Lime Kiln 1	1 (b)	4	-	7	2 (f)	-	-
Lime Kiln 2	11 (b)	22	9 (d)	41	19 (f)	2	-
Lime Kiln 3	10 (b)	20	7 (d)	60	19 (f)	1	-
Smelt Dissolving Tank 1	-	23	2 (b)	-	-	1	-
Smelt Dissolving Tank 2	-	24	3 (b)	-	-	2	-
Smelt Dissolving Tank 3	-	37	3 (b)	-	-	2	-
Slaker 3	-	1	-	-	-	-	-
TOTAL	2817	525	34	500	385	41	44

- (a) = Emission test report by IEA Inc. (Attachment 3)
(b) = AP-42 factors used due to lack of actual data
(c) = Annual Operating Reports for 1990 and 1991 (Attachments 1 & 2)
(d) = SO₂ Source Test Reports by TSI and ACE (Attachments 4, 5, 6)
(e) = NO_x Test Report by TSI (Attachment 7)
(f) = NCASI information (Attachment 8)

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OCT 23 1992

Division of Air
Resources Management

Table 3-6. PSD Source Applicability Analysis, SKC Package Boiler Project

Regulated Pollutant	Baseline Emissions (TPY)										Future Emissions (TPY)				Net Change (TPY)	Significant Emission Rate (TPY)	PSD Applies ?
	RB1	RB2	RB3	SDT1	SDT2	SDT3	LK1	LK2	LK3	Totals	PB1	PB2	PB3	Totals			
Particulate (TSP)	107.8	156.0	129.7	22.6	23.8	36.9	3.8	21.6	19.6	521.8	36.05	36.05	36.05	108.1	-413.7	25	No
Particulate (PM10)	80.8	117.0	97.2	20.2	21.3	33.0	3.7	21.2	19.3	413.7	18.00	18.00	18.00	54.0	-359.7	15	No
Sulfur dioxide	3.7	2.8	0.8	2.9	2.8	2.9	0.1	8.5	6.7	31.2	216.15	216.15	216.15	648.5	617.3	40	Yes
Nitrogen oxides	119.8	129.4	143.2	--	--	--	6.4	41.6	60.2	500.6	153.04	153.04	153.04	459.1	-41.5	40	No
Carbon monoxide	1,140.9	1,173.0	480.8	--	--	--	1.5	10.2	10.0	2,816.4	273.31	273.31	273.31	819.9	-1,996.5	100	No
Volatile org. compds.	114.0	193.3	37.6	--	--	--	2.1	19.1	18.6	384.7	1.05	1.05	1.05	3.2	-381.5	40	No
Lead	0	0	0	--	--	--	--	--	--	0.0	0.0064	0.0064	0.0064	0.019	0.019	0.6	No
Mercury	0	0.0045	0	--	--	--	--	--	--	0.0045	0.0024	0.0024	0.0024	0.0073	0.0028	0.1	No
Beryllium	0	0	0	--	--	--	--	--	--	0.0	0.0018	0.0018	0.0018	0.0054	0.0054	0.0004	Yes
Fluorides	--	--	--	--	--	--	--	--	--	0.0	0.023	0.023	0.023	0.069	0.069	3	No
Sulfuric acid mist	9.7	19.9	14.3	--	--	--	--	--	--	43.9	10.8	10.8	10.8	32.4	-11.5	7	No
Total reduced sulfur	7.2	12.3	14.0	1.6	1.8	1.6	0.2	1.7	1.4	41.8	--	--	--	0	-41.8	10	No
Asbestos	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	0.007	No
Vinyl Chloride	0	0	0	--	--	--	--	--	--	--	--	--	--	--	0	0	No

TABLE II
HEAVY METALS

JANUARY 6-13, 1992

LBS/YR

BARIUM	9
CHROMIUM	20
COPPER	14
MANGANESE	65
MERCURY	4
NICKEL	11
PHOSPHORUS	255
SILVER	5
ZINC	296



P
PATTY
JOHN R.

January 26, 1993

Mr. John Brown, Jr., P.E.
Bureau of Air Regulation
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RECEIVED
JAN 27 1993
Division of Air
Resources Management

Re: Seminole Kraft Proposed Package Boilers
AC16-222359, PSD-FL-198

Dear Mr. Brown:

It has come to our attention that a minor error was made in determining the baseline NO_x emissions for Lime Kiln No. 3 in the PSD source applicability for the proposed package boilers (reference Table 3-5 in KBN's letter submittal of December 22, 1992). This error stemmed from an error in the consultant's stack test report (excerpts attached), which showed a NO_x emission rate of 15.85 lb/hr in the summary section, but reported 14.1 lb/hr in the detailed data table (Table III). The 14.1 lb/hr emission rate is the correct value for Lime Kiln No. 3. Therefore, Tables 3-5 and 3-6 of the PSD application have been revised to reflect this change.

In addition to this change, the baseline VOC emissions for the lime kilns have been revised based on the 2-year average (1990-1991) fuel use, instead of the 1991 fuel usage. This changes the baseline VOC emissions slightly. These revisions are also reflected in the revised tables. Other minor typographical errors have also been corrected in Tables 3-3, 3-4, and 3-5. All of these tables have been revised and are attached.

Based on the revised tables, the PSD source applicability analysis (Table 3-6) has been revised. As shown, the PSD applicability is not affected by these minor corrections. Please call if you have any questions concerning this information.

Sincerely,

David A. Buff

David A. Buff, M.E., P.E.
Principal Engineer

DAB/dmm

cc: Curt Barton, Stone Container
Craig Hurd, Stone Container
Mike Riddle, Seminole Kraft
Scott Shirley, Oertel & Hoffman
B. Mitchell, National Park Service
Jewell Harper, EPA Region IV

R. Robertson, Jacksonville BES
A. Kutyna, FDER Jacksonville
File (2)
G. Reynolds
C. Holladay
B. Owen
R. Conelan

12169A1/10

KBN ENGINEERING AND APPLIED SCIENCES, INC.

1034 Northwest 57th Street Gainesville, Florida 32605 904/331-9000 FAX: 904/332-4189

Table 3-3. Baseline Emissions for Recovery Boilers (revised 01/20/93)

Regulated Pollutant	Recovery Boiler No. 1			Recovery Boiler No. 2			Recovery Boiler No. 3		
	Operating Hours (hr/yr)	Emission Rate (lb/hr)	Annual Emissions (TPY)	Operating Hours (hr/yr)	Emission Rate (lb/hr)	Annual Emissions (TPY)	Operating Hours (hr/yr)	Emission Rate (lb/hr)	Annual Emissions (TPY)
Particulate (TSP)	--	--	107.75	--	--	156.00	--	--	129.65
Particulate (PM10)	--	--	80.81	--	--	117.00	--	--	97.24
Sulfur dioxide	8,161	0.9	3.67	8,113	0.7	2.84	8,133	0.2	0.81
Nitrogen oxides	8,161	28.8	117.52	8,113	31.8	129.00	8,133	34.3	139.48
Carbon monoxide	8,161	274.2	1,118.87	8,113	288.2	1,169.08	8,133	115.2	468.46
Volatile org. compds.	8,161	27.4	111.81	8,113	47.5	192.68	8,133	9.0	36.60
Lead	8,161	0	0	8,113	0.0	0	8,133	0	0
Mercury	8,161	0	0	8,113	0.0011	0.0045	8,133	0	0
Beryllium	8,161	0	0	8,113	0.0	0	8,133	0	0
Arsenic	8,161	0	0	8,113	0.0	0	8,133	0	0
Fluorides	8,161	--	--	8,113	--	--	8,133	--	--
Sulfuric acid mist	8,161	2.34	9.55	8,113	4.90	19.88	8,133	3.42	13.91
Total reduced sulfur	--	--	7.17	--	--	12.35	--	--	14.00
Asbestos	--	--	--	--	--	--	--	--	--
Vinyl Chloride	--	0	0	--	0	0	--	0	0

Notes: Operating hours represent average of 1990-1991 actual operating hours.

Emission rates are measured emission rates during actual stack test, unless otherwise noted below.

PM and TRS annual emissions are based on average 1990-1991 emissions as reported in Annual Operation Report For Air Emission Sources.

PM10 is based on extrapolation of AP-42 data for recovery boilers: 75% of PM is PM10.

Fluorides and asbestos were not measured; there are no emission factors; there are no known emissions.

Table 3-4. Baseline Emissions for Smelt Dissolving Tanks (revised 01/20/93)

Regulated Pollutant	Smelt Tank No. 1		Smelt Tank No. 2		Smelt Tank No. 3	
	Operating	Annual	Operating	Annual	Operating	Annual
	Hours (hr/yr)	Emissions (TPY)	Hours (hr/yr)	Emissions (TPY)	Hours (hr/yr)	Emissions (TPY)
Particulate (TSP)	--	22.6	--	23.8	--	36.9
Particulate (PM10)	--	20.2	--	21.3	--	33.0
Sulfur dioxide	8,161	2.9	8,113	2.8	8,133	2.9
Nitrogen oxides	--	--	--	--	--	--
Carbon monoxide	--	--	--	--	--	--
Volatile org. compds.	--	--	--	--	--	--
Lead	--	--	--	--	--	--
Mercury	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--
Arsenic	--	--	--	--	--	--
Fluorides	--	--	--	--	--	--
Sulfuric acid mist	--	--	--	--	--	--
Total reduced sulfur	--	1.6	--	1.8	--	1.6
Asbestos	--	--	--	--	--	--
Vinyl Chloride	--	--	--	--	--	--

Notes: Operating hours represent actual operating hours for 1991.

PM and TRS annual emissions are based on average 1990-1991 emissions as reported in Annual Operation Report For Air Emission Sources.

PM10 is based on AP-42 data for controlled PM from smelt tanks: 89.5% of PM is PM10.

SO2 emissions based on AP-42 factor of 0.2 lb/ton ADUP, and 80% removal efficiency for spray chamber with demister pad for PM control. Total pulp production was as follows:

1990-- 459,683 tons ADUP

1991-- 395,040 tons ADUP

Average-- 427,362 tons ADUP

$427,362 \text{ tons ADUP} \times 0.2 \text{ lb/ton} \times (1-0.80) / 2,000 \text{ lb/ton} = 8.55 \text{ TPY}$

Divide SO2 emissions between smelt tanks based on average operating hours for 1990-1991.

Table 3-5. Baseline Emissions for Lime Kilns (revised 1/18/93)

Regulated Pollutant	Emission Factor	Lime Kiln No. 1		Lime Kiln No. 2		Lime Kiln No. 3	
		Activity Factor	Annual Emissions (TPY)	Activity Factor	Annual Emissions (TPY)	Activity Factor	Annual Emissions (TPY)
Particulate (TSP)	--	--	3.8	--	21.6	--	19.6
Particulate (PM10)	--	--	3.7	--	21.2	--	19.3
Sulfur dioxide	0.16/2.18/1.76 lb/hr ^a	1,170 hr/yr	0.1	7,732 hr/yr	8.4	7,598 hr/yr	6.7
Nitrogen oxides	15.3/10.7/14.1 lb/hr ^a	1,170 hr/yr	9.0	7,732 hr/yr	41.4	7,598 hr/yr	53.6
Carbon monoxide	0.1 lb/ton ADUP	1,170 hr/yr	1.5	7,732 hr/yr	10.0	7,598 hr/yr	9.9
Volatile org. compds.	0.13 lb/MM Btu	53,719 MM Btu/yr	3.5	286,109 MM Btu/yr	18.6	281,373 MM Btu/yr	18.3
Lead	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--	--
Arsenic	--	--	--	--	--	--	--
Fluorides	--	--	--	--	--	--	--
Sulfuric acid mist	--	--	--	--	--	--	--
Total reduced sulfur	--	--	0.2	--	1.7	--	1.4
Asbestos	--	--	--	--	--	--	--
Vinyl Chloride	--	--	--	--	--	--	--

^a Emission factors for Lime Kilns No. 1, No. 2 and No. 3, respectively, based on actual test data.

Notes:

Operating hours represent two year average, 1990-1991.

PM and TRS annual emissions are based on average 1990-1991 emissions as reported in Annual Operation Report For Air Emission Sources.

PM10 is based on AP-42 data for lime kilns controlled with venturi scrubber: 98.3% of PM is PM10.

SO2 emissions based on average of stack tests conducted in 1989.

NOx emissions based on stack tests conducted on each lime kiln in 1992.

CO emissions based on AP-42 factor of 0.1 lb/ton ADUP.

Total pulp production was as follows:

1990-- 459,683 tons ADUP

1991-- 395,040 tons ADUP

Average-- 427,362 tons ADUP

CO: 427,362 tons ADUP x 0.1 lb/ton / 2,000 lb/ton = 21.4 TPY

Divide emissions between lime kilns based on average operating hours in 1990-1991.

VOC emissions based on heat input and NCASI emission factors (see attached)

Heat input based on actual fuel oil fired in kilns in 1990-1991, using 142,000 Btu/gal for fuel oil.

	Kiln 1	Kiln 2	Kiln 3
1990 Gallons--	533,000	1,962,100	1,946,500
1991 Gallons--	223,600	2,067,600	2,016,500
Average Gallons--	378,300	2,014,850	1,981,500
Average Btu/yr--	5.372E+10	2.861E+11	2.814E+11

Table 3-6. PSD Source Applicability Analysis, SKC Package Boiler Project (revised 01/20/93)

Regulated Pollutant	Baseline Emissions (TPY)										Future Emissions (TPY)				Net Change (TPY)	Significant Emission Rate (TPY)	PSD Applies ?
	RB1	RB2	RB3	SDT1	SDT2	SDT3	LK1	LK2	LK3	Totals	PB1	PB2	PB3	Totals			
Particulate (TSP)	107.8	156.0	129.7	22.6	23.8	36.9	3.8	21.6	19.6	521.8	36.05	36.05	36.05	108.2	-413.65	25	No
Particulate (PM10)	80.8	117.0	97.2	20.2	21.3	33.0	3.7	21.2	19.3	413.7	18.00	18.00	18.00	54.0	-359.7	15	No
Sulfur dioxide	3.7	2.8	0.8	2.9	2.8	2.9	0.1	8.4	6.7	31.1	216.15	216.15	216.15	648.5	617.4	40	Yes
Nitrogen oxides	117.5	129.0	139.5	--	--	--	9.0	41.4	53.6	490.0	153.04	153.04	153.04	459.1	-30.9	40	No
Carbon monoxide	1,118.9	1,169.1	468.5	--	--	--	1.5	10.0	9.9	2,777.9	273.31	273.31	273.31	819.9	-1958.0	100	No
Vol. org. compds.	111.8	192.7	36.6	--	--	--	3.5	18.6	18.3	381.5	1.05	1.05	1.05	3.2	-378.35	40	No
Lead	0	0	0	--	--	--	--	--	--	0.0	0.0064	0.0064	0.0064	0.019	0.019	0.6	No
Mercury	0	0.0045	0	--	--	--	--	--	--	0.0045	0.0024	0.0024	0.0024	0.0072	0.0027	0.1	No
Beryllium	0	0	0	--	--	--	--	--	--	0.0	0.0018	0.0018	0.0018	0.0054	0.0054	0.0004	Yes
Fluorides	--	--	--	--	--	--	--	--	--	0.0	0.023	0.023	0.023	0.069	0.069	3	No
Sulfuric acid mist	9.6	19.9	13.9	--	--	--	--	--	--	43.4	10.8	10.8	10.8	32.4	-11.0	7	No
Total reduced sulfur	7.2	12.4	14.0	1.6	1.8	1.6	0.2	1.7	1.4	41.9	--	--	--	0	-41.9	10	No
Asbestos	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	0.007	No
Vinyl Chloride	0	0	0	--	--	--	--	--	--	--	--	--	--	--	0	0	No

II SUMMARY AND DISCUSSIONS OF RESULTS

Measurements of NO_x emissions were made at the discharge stacks for Lime Kilns 1, 2, and 3 using a Thermoelectron Model 12A chemiluminescence NO_x analyzer following the protocol of EPA method 7E. The instrument span was set at 500ppm full scale and the appropriate standards for this range were used to calibrate the instrument. High, low and midrange standards were used and ambient air was used to zero the instrument. At the same time, a portion of the sample gas stream was directed to a Teledyne Model 720P oxygen analyzer and oxygen concentrations measured simultaneously with the NO_x measurements. Ambient air was used to span the oxygen analyzer, a midrange gas was utilized and zero was set using one of the NO_x standards.

The NO_x and O₂ concentrations were monitored for three hours at each kiln. The sampling point was the same as that utilized for particulate sampling and sample was drawn from the centroid of the stack in each case. Tables I - III present summaries of the NO_x and O₂ concentrations for the three kilns and the calculated mass emissions are also tabulated. NO_x emissions in lbs/MMBTU heat input was also calculated using the "F" factor for fuel oil.

Average Emissions were:

	ppm	NO _x lbs/hr	lb/MMBTU
No. 1 Kiln	193.8	15.34	0.294
No. 2 Kiln	101.6	10.67	0.210
No. 3 Kiln	181.3	15.85	0.297

Volumetric flow rates from particulate emission sampling were used for calculations.

RECEIVED 10/01 18:10 1992 AT 9043324189 PAGE 2 (PRINTED PAGE 2) J #159 P02
 OCT-01-'92 THU 16:57 ID:SEMINOLE KRAFT TEL NO: (904)751-5822

TABLE I
 NITROGEN OXIDE (NOx) EMISSIONS SUMMARY
 SEMINOLE KRAFT CORPORATION
 JACKSONVILLE, FLORIDA
 NO. 1 LIME KILN

DATE	TIME PERIOD	LEVEL	OXYGEN %	NITROGEN OXIDES			VOLUMETRIC FLOW SCFM
				PPM	LBS/HR	LB/MMBTU	
2-20-92	1340-1440	MAX	6.5	190.0	15.04	0.284	11040
		MIN	2.5	157.5	13.26	0.251	
		AVG	5.5	177.5	14.05	0.266	
2-20-92	1440-1540	MAX	6.1	202.5	16.03	0.307	11040
		MIN	5.4	172.5	13.56	0.261	
		AVG	5.8	187.0	14.80	0.283	
2-20-92	1540-1640	MAX	6.1	222.5	17.61	0.342	11040
		MIN	5.9	210.0	16.62	0.323	
		AVG	6.0	216.8	17.16	0.333	
MEAN			5.8	193.8	15.34	0.294	11040

$$\text{LBS/HR} = \text{ppm} \times 10^{-6} \times \frac{\text{lb/lb - mole}}{385 \text{ ft}^3} \times 60 \frac{\text{min}}{\text{hr}} \times \text{SCFMD}; \text{ lb/lb - mole for NO}_x = 46.01$$

$$= \text{ppm} \times 10^{-6} \times \frac{46.01}{353} \times 60 \times \text{SCFMD} = \text{ppm} \times 10^{-6} \times 7.1704 \times \text{SCFMD}$$

$$\text{LB/MMBTU} = 1.1917 \times 10^{-7} \times 9190 \times \text{ppm} \times \frac{20.9}{20.9 - \%O_2}$$

TABLE II
 NITROGEN OXIDE (NOx) EMISSIONS SUMMARY
 SEMINOLE KRAFT CORPORATION
 JACKSONVILLE, FLORIDA
 NO. 2 LIME KILN

DATE	TIME PERIOD	LEVEL	OXYGEN %	NITROGEN OXIDES			VOLUMETRIC FLOW SCFMD
				PPM	LBS/HR	LB/MMBTU	
2-20-92	1010-1110	MAX	9.3	35.0	9.33	0.191	14646
		MIN	9.1	37.5	9.19	0.176	
		AVG	9.5	30.8	9.54	0.192	
2-20-92	1110-1210	MAX	10.5	102.5	10.76	0.217	14646
		MIN	9.0	92.5	9.71	0.195	
		AVG	9.3	99.0	10.4	0.210	
2-20-92	1210-1310	MAX	10.5	130.0	13.65	0.271	14646
		MIN	9.0	95.0	9.98	0.193	
		AVG	9.9	115.0	12.03	0.239	
MEAN			9.7	101.6	10.67	0.210	14646

$$\text{LBS/HR} = \text{ppm} \times 10^{-6} \times \frac{\text{lb/lb - mole}}{385 \text{ ft}^3} \times \frac{60 \text{ min}}{\text{hr}} \times \text{SCFMD}; \text{ lb/lb - mole for NO}_x = 46.01$$

$$= \text{ppm} \times 10^{-6} \times \frac{46.01}{385} \times 60 \times \text{SCFMD} = \text{ppm} \times 10^{-6} \times 7.1704 \times \text{SCFMD}$$

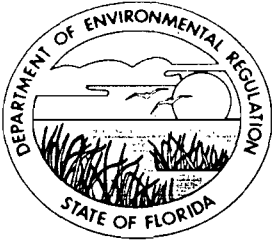
$$\text{LB/MMBTU} = 1.1917 \times 10^{-7} \times 9190 \times \text{ppm} \times \frac{20.9}{20.9 - \text{O}_2}$$

I RECEIVED 10/01 18:11 1992 AT 9043324189 PAGE 4 (PRINTED PAGE 4)] #159 P04
 TEL NO: (904)751-5822 ID: SEMINOLE KRAFT
 OCT-01-'92 THU 16:58

TABLE III
 NITROGEN OXIDE (NO_x) EMISSIONS SUMMARY
 SEMINOLE KRAFT CORPORATION
 JACKSONVILLE, FLORIDA
 NO. 3 LIME KILN

DATE	TIME PERIOD	LEVEL	OXYGEN %	NITROGEN OXIDES			VOLUMETRIC FLOW SCFM
				PPM	LBS/HR	LB/MMBTU	
2-21-92	0925-1025	MAX	7.5	177.2	15.43	0.300	12190
		MIN	7.0	139.4	12.13	0.236	
		AVG	7.4	162.2	14.18	0.275	
2-21-92	1025-1125	MAX	6.8	168.7	14.75	0.274	12190
		MIN	6.6	146.9	12.84	0.238	
		AVG	6.8	157.8	13.79	0.256	
2-21-92	1125-1225	MAX	6.6	169.9	14.85	0.272	12190
		MIN	6.5	150.1	13.99	0.256	
		AVG	6.6	164.7	14.40	0.264	
MEAN			6.9	161.6	14.12	0.265	12190

$$\begin{aligned}
 \text{LBS/HR} &= \text{ppm} \times 10^{-6} \times \frac{\text{lb/lb - mole}}{385 \text{ ft}^3} \times 60 \frac{\text{min}}{\text{hr}} \times \text{SCFMD}; \text{ lb/lb - mole for NO}_x = 46.01 \\
 &= \text{ppm} \times 10^{-6} \times \frac{46.01}{385} \times 60 \times \text{SCFMD} = \text{ppm} \times 10^{-6} \times 7.1704 \times \text{SCFMD} \\
 \text{LB/MMBTU} &= 1.1917 \times 10^{-7} \times 3190 \times \text{ppm} \times \frac{20.9}{20.9 - \%O_2}
 \end{aligned}$$



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

January 25, 1993

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. L. A. Stanley, General Manager
Seminole Kraft Corporation
9469 East Port Road
Jacksonville, Florida 32229

Dear Mr. Stanley:

Re: Permit Application AC16-222359, PSD-FL-198
New Package Boilers - Seminole Kraft

The Department received Stone Container Corporation's January 15 response to our incompleteness letter dated January 5, 1993. This response satisfies Item 1 which requested evidence of efforts to obtain a gas contract. However, Item 2, requesting the supplier's estimate of gas availability, has not been answered. The determination of best available control technology cannot be completed unless the required information concerning gas availability is provided.

If there are any questions regarding the above, please contact Preston Lewis or John Reynolds at (904) 488-1344.

Sincerely,



John C. Brown, Jr., P.E.
Administrator
Air Permitting and Standards

JCB/JR/plm

cc: A. Kutyna, NED
B. Collum, GEPD
R. Roberson, BESD
C. Hurd, SKC
J. Harper, EPA
D. Buff, KBN
B. Mitchell, NPS
T. Cole, OHF&C
B. Owen

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3 and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt Fee will provide you the signature of the person delivered to and the date of delivery.

I also wish to receive the following services (for an extra fee):

1 Addressee's Address

2 Restricted Delivery

Consult postmaster for fee.

3 Article Addressed to:
Mr. L. A. Stanley
General Manager
Seminole Kraft Corporation
9469 East Port Road
Jacksonville, FL 32229

4a Article Number
P 062 922 025

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

5 Signature (Addressee)

6 Signature (Agent)
Stanley

7 Date of Birth

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

PS Form 3811, November 1990 U.S. GPO: 1991-287-088

DOMESTIC RETURN RECEIPT

P 062 922 025



Receipt for Certified Mail

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

PS Form 3800, June 1991

Sent to Mr. L. A. Stanley, Seminole	
Street and No. Kraft Corp. 9469 East Port Road	
P.O., State and ZIP Code Jacksonville, FL 32229	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date Mailed: 1-25-93 Permit: AC 16-222359 PSD-FL-198	

OERTEL, HOFFMAN, FERNANDEZ & COLE, P. A.

ATTORNEYS AT LAW

SUZANNE BROWNLESS
M. CHRISTOPHER BRYANT
R. L. CALEEN, JR.
C. ANTHONY CLEVELAND
TERRY COLE
ROBERT C. DOWNIE, II
SEGUNDO J. FERNANDEZ
KENNETH F. HOFFMAN
NORMAN H. HORTON, JR.
KENNETH G. OERTEL
PATRICIA A. RENOVITCH
SCOTT SHIRLEY
THOMAS G. TOMASELLO
W. DAVID WATKINS

SUITE C
2700 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301

MAILING ADDRESS:
POST OFFICE BOX 6507
TALLAHASSEE, FLORIDA 32314-6507

TELEPHONE (904) 877-0099
FACSIMILE (904) 877-0981

JOHN H. MILLICAN
ENVIRONMENTAL CONSULTANT
(NOT A MEMBER OF THE FLORIDA BAR)

J. P. SUBRAMANI, Ph. D., P. E.
ENVIRONMENTAL CONSULTANT
(NOT A MEMBER OF THE FLORIDA BAR)

RECEIVED

January 19, 1993

JAN 19 1993

Division of Air
Resources Management

Mr. John C. Brown, Jr., P.E.
Administrator, Air Permitting & Standards
Florida DER
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dear Mr. Brown:

Attached is a letter from Seminole Kraft providing the information that you requested regarding efforts to obtain natural gas for its proposed new replacement power boilers.

With this information, we believe that we have fully responded to the completeness report previously provided as well as the information requested in your letter of January 5, 1993. Thus, we believe the application should now be considered complete. We understand the Department's issue of natural gas as BACT, although we may not fully agree with the Department on the issue. However, that should not prevent the application from being determined complete, although it may be an ultimate permitting issue for the Department to consider.

If the Department has not determined the application to be complete with the receipt of this information, we would appreciate your letting us know as soon as possible. As we committed at the meeting, we will follow up with an update on the natural gas issue after the next meeting with Peoples Gas.

We appreciate you and the other staff taking time to meet and discuss this information with us and your attempts to speedily process the application.

Sincerely,

Terry Cole
Terry Cole

Attachments

c: Richard Donelan
Clair Fancy
John Reynolds

D. Owen
Cole\Seminoles\Brown1.18

C. Holladay
R. Robinson, BESO
A. Katorna, NE Dist,
J. Harper, EPA
J. Bunyak, NPS



Stone Container Corporation

Technology and Engineering

Containerboard and Paper Division

1979 Lakeside Parkway
Suite 300
Tucker, Georgia 30084

January 15, 1993

404 621-6700
404 621-6733 Fax

Mr. John C. Brown, Jr. P.E.
Administrator, Air Permitting & Standards
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Dear John:

As promised during our meeting in Tallahassee on January 14th, following is a chronological list of our contacts with Peoples Gas regarding a natural gas supply for the package boilers to be installed at Seminole Kraft. In addition, of course, there were numerous phone contacts.

May 4, 1992	Letter from Peoples responding to our verbal inquiry about gas supply.
May 29, 1992	Confirming letter from Peoples indicating they had delivery capacity available.
June 2, 1992	Letter from Peoples indicating they had no local barriers to gas supply.
July 3, 1992	Correspondence form Sun Coast Pipeline regarding pipeline development (alternate delivery route).
August 6, 1992	Meeting with Peoples at which we defined volume requirements and requested a firm transportation contract be prepared.
Sept. 1, 1992	Draft term sheet received from Peoples.
Sept. 2, 1992	Internal correspondence with term sheet review. We requested additional data from Peoples.
Sept. 16, 1992	Additional material received from Peoples.
Sept. 16- Oct. 9, 1992	Internal review of Peoples term sheet proposals.

Oct. 13, 1992 Correspondence from Peoples regarding our comments on term sheet.

Oct. 14, 1992 Meeting with Peoples Gas in Jacksonville. Instructed them to prepare contracts.

Nov. 24, 1992 Teleconference regarding contract terms with external counsel specialized in natural gas matters.

Dec. 4, 1992 Meeting in Tampa - draft contract review.

Dec. 9, 1992 Internal correspondence defining pending issues.

Dec. 9-29, 1992 Legal review and rewrite of contract using external counsel.

Dec. 16, 1992 Teleconference regarding contract terms (Seminole Kraft and attorneys).

Jan. 6, 1993 Redraft of contracts received from attorneys.

Jan. 8, 1993 Teleconference (attorneys, Seminole, and Peoples).

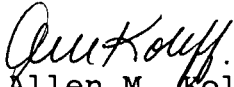
Jan. 15, 1993 "Final" draft contract promised by Peoples.

At such time as the contract with Peoples is finalized we will be happy to provide you with a copy.

We understand that this information is sufficient response to your letter of January 5, 1993. Please advise immediately if you find any remaining completeness questions.

Sincerely,

STONE CONTAINER CORPORATION


Allen M. Koleff, Vice President
Environmental, Process & Energy Technology

AMK/ss

cc: Terry Cole, Esq.
Mike Riddle/Seminole
C. Fancy/Florida DER

Larry Stanley/Seminole
Curt Barton/Atlanta



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

JAN 15 1993

4APT-AEB

Mr. Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Seminole Kraft Corporation, Duval County
(PSD-FL-198)

Dear Mr. Fancy:

This is to acknowledge receipt of the Prevention of Significant Deterioration (PSD) permit application package for the above referenced facility. The existing Seminole Kraft Corporation facility is a 100-percent recycled fiber paper mill. The proposed modification to the existing facility will be the addition of three package boilers, to be fired with fuel oil and natural gas.

The applicant proposes to limit SO₂ emissions through limiting the sulfur content of the distillate fuel oil and to limit beryllium emissions through efficient combustion and the use of ash free and low ash fuels.

We have reviewed the package as submitted and have no adverse comments. Thank you for the opportunity to review and comment on the package. If you have any questions or comments, please contact either Mr. Lew Nagler for modeling/monitoring or Mr. Scott Davis of my staff at (404) 347-5014.

Sincerely yours,

Brian L. Beals

Brian L. Beals, Chief
Source Evaluation Unit
Air Enforcement Branch
Air, Pesticides, and Toxics
Management Division

J. Reynolds
C. Holladay
A. Hutema, NE Dist
R. Robinson, BESD
B. Owen
A. Bunnah, NPS
D. Buff, KBN
B. Collom, GEPD

D. Cole, OHF&C
L.A. Stanley, SKC
C. Ward, SCC
CHF/JCB/PL

RECEIVED

JAN 25 1993

Division of Air
Resources Management



Seminole Kraft Corporation

Jacksonville Mill

9469 Eastport Road
P.O. Box 26998
Jacksonville, Florida 32218-0998

January 9, 1991

RECEIVED

904 751-6400

Mr. James L. Manning, P.E.
Department of Health, Welfare and
Bio-Environmental Services
421 West Church Street, Suite 412
Jacksonville, FL 32202-4111

JAN 17 1991

DER-BAQM

Dear Mr. Manning:

This letter is provided to comply with paragraph 11 of the Stipulation for Entry of a Consent Judgement (the odor settlement) that Seminole Kraft notify the City of Jacksonville that it has achieved certain items in the compliance schedule. This letter will provide notification that Seminole has completed the first two items on the compliance scheduled.

As the Department knows, Seminole entered into a letter of intent with Holder Pamac, Ltd. to conduct a pre-engineering study to establish firm project definition and costs in June, 1990. That study was completed in late Fall and confirmed our original cost estimates. Accordingly, the project is moving ahead as scheduled.

As of December 31, 1990, Seminole has placed orders for the following major equipment:

1. OCC plant repulpers and detrashing system
2. OCC plant cleaners
3. OCC plant fiber fractionation equipment
4. OCC plant dispersion equipment and refiners
5. OCC plant flotation separation equipment
6. All new pumps and motors
7. New rolls for the paper machine
8. New winder for the paper machine

The project remains on schedule and completion is expected during the summer of 1992.

Please let me know if you have any questions.

Sincerely,

L.A. Stanley
General Manager

CC: Clair Fancy, DER
Ernest Frey, DER



RECEIVED

January 8, 1993

JAN 11 1993

Mr. John Brown, Jr., P.E.
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Bureau of
Air Regulation

Re: Seminole Kraft Corporation (SKC) Proposed Package Boilers
AC16-222359, PSD-FL-198

Dear Mr. Brown:

At the request of the Florida Department of Environmental Regulation (the Department), KBN has performed an analysis of potential impacts on vegetation, soils, wildlife, and the aquatic environment for SKC's proposed package boilers. The analysis was conducted for potential impacts on the Okefenokee National Wilderness Area and the Wolf Island National Wilderness Area, which are two PSD Class I areas. As requested by the Department, the pollutants addressed in this assessment are sulfur dioxide and beryllium. The analysis is presented in the attached report.

With this response, SKC has responded to all completeness questions raised in the Department's December 23, 1992, letter. Please call if you have any questions concerning this information.

Sincerely,

David A. Buff, M.E., P.E.
Principal Engineer

DAB/dmpm

cc: Curt Barton, Stone Container
Craig Hurd, Stone Container
Mike Riddle, Seminole Kraft
Scott Shirley, Oertel & Hoffman
B. Mitchell, National Park Service
Jewell Harper, EPA Region IV
R. Robertson, Jax BESD
Andy Kutyna, FDER Jacksonville

File (2)

12169B1/R1/1

KBN ENGINEERING AND APPLIED SCIENCES, INC.

1034 Northwest 57th Street Gainesville, Florida 32605 904/331-9000 FAX: 904/332-4189

**AIR QUALITY RELATED
VALUES ANALYSIS
FOR
SEMINOLE KRAFT'S PROPOSED
PACKAGE BOILERS**

Prepared For:

**Seminole Kraft Corporation
9469 Eastport Road
Jacksonville, Florida 32218**

Prepared By:

**KBN Engineering and Applied Sciences, Inc.
1034 NW 57th Street
Gainesville, Florida 32605**

**January 1993
12169B1/R1**

1.0 INTRODUCTION

Seminole Kraft Corporation (SKC) is proposing to construct and operate three new package boilers at their 100 percent recycled fiber paper mill facility located in Jacksonville, Florida. The new package boilers are subject to the prevention of significant deterioration (PSD) new source review requirements for the pollutants sulfur dioxide (SO₂) and beryllium (Be). As a result, the Florida Department of Environmental Regulation (FDER) has requested that an analysis of the impacts of these emissions upon two PSD Class I areas be performed. The analysis addresses the potential impacts on vegetation, soils, wildlife, and the aquatic environment due to SKC's proposed package boilers, including other sources.

The Okefenokee National Wilderness Area (NWA) is located approximately 55 kilometers (km) northwest of SKC, and the Wolf Island NWA is located approximately 100 km north of SKC.

2.0 AQRVS FOR THE OKEFENOKEE NWA AND WOLF ISLAND NWA

2.1 DEFINITION OF AQRVS AND CRITERIA APPLIED TO OKEFENOKEE NWA AND WOLF ISLAND NWA

Both Okefenokee NWA and Wolf Island NWA are classified as Class I areas by the U.S. Fish and Wildlife Service (USFWS) for purposes of prevention of significant deterioration (PSD) new source review. USFWS has defined air quality related values (AQRVs) for such areas as being:

All those values possessed by an area except those that are not affected by changes in air quality and include all those assets of an area whose vitality, significance, or integrity is dependent in some way upon the air environment. These values include visibility and those scenic, cultural, biological, and recreational resources of an area that are affected by air quality.

Important attributes of an area are those values or assets that make an area significant as a natural monument, preserve, or primitive area. They are the assets that are to be preserved if the area is to achieve the purposes for which it was set aside (Federal Register, 1978).

2.2 AQRVS OF OKEFENOKEE NWA AND WOLF ISLAND NWA

Those values of the Okefenokee NWA and Wolf Island NWA which are directly dependent upon the air environment are the water, soil and vegetation resources. Less directly dependent on the air environment are the wildlife resources. Important aquatic, vegetation, and wildlife attributes of these areas which make the Okefenokee NWA and Wolf Island NWA significant are presented in Table 2-1. The reported general effects on aquatic, vegetation, and wildlife resources from significant degradation in air quality are described in Table 2-2. All terrestrial vegetation, including threatened and endangered plant species of Okefenokee NWA and Wolf Island NWA, are dependent upon the air environment and are considered AQRVs. Some terrestrial wildlife and endangered and threatened wildlife are also considered AQRVs for Okefenokee NWA and Wolf Island NWA. Threatened and endangered species associated with terrestrial habitats of Okefenokee NWA and Wolf Island NWA are listed in Table 2-3.

Table 2-1. Important Aquatic Vegetational and Water Resource Attributes or AQRVs of Okefenokee NWA and Wolf Island NWA Dependent Upon the Air Environment

Attribute	Location
<u>Aquatic</u>	
Tidal creeks	Wolf Island NWA
Blackwater rivers, ponds, sloughs	Okefenokee NWA
<u>Vegetation</u>	
Ecological communities including:	
Salt marsh	Wolf Island NWA
Cypress wetlands	Okefenokee NWA
Wet flatwoods	Okefenokee NWA
Bay-shrub bogs	Okefenokee NWA
Basin marshes	Okefenokee NWA
Mixed hardwood swamp	Okefenokee NWA
Unique ecological communities	
Maritime hammock	Wolf Island NWA
Old-growth cypress swamp	Okefenokee NWA
Unique plants	
Threatened and endangered species	Okefenokee NWA
Epiphytic plants including orchids and bromeliads	Okefenokee NWA
Air quality bioindicators - lichens	Okefenokee NWA
<u>Wildlife</u>	
Birds, mammals, reptiles and amphibians	Wolf Island NWA Okefenokee NWA
Threatened and endangered species	Wolf Island NWA Okefenokee NWA
(see Table 2-3)	

Note: NWA = National Wilderness Area.

Table 2-2. Reported General Effects on Aquatic, Vegetation, and Wildlife Resources From Significant Degradation in Air Quality

Attribute	Potential Effects and Associated Air Quality Change
Aquatic Resources	Acidification of waters and subsequent changes (loss and replacement) of ecological components; sensitive systems have low buffering capacity
Vegetation Resources	Most common effects include reduced growth, injury, and species replacement; species show specific sensitivity
Wildlife Resources	Potential effects include avoidance and increased body burdens of contaminants

Source: KBN, 1986.

Table 2-3. Federal and State Listed Endangered and Threatened Animals in the Okefenokee and Wolf Island NWAs

Species	Designated Status	
	State ^a	USFWS ^b
Florida Black Bear	S4	C2
Arctic Peregrine Falcon	S1	-
Bachman's Warbler	E	E
Bald Eagle	E	E
Piping Plover	S1/S2	T
Red-Cockaded Woodpecker	E	E
Wood Stork	S2	E
American Alligator	-	T(S/A)
Atlantic Loggerhead	-	T
Eastern Indigo Snake	S3	T

^a State (Georgia) Status:

- E = endangered.
- S1 = regionally endangered.
- S2 = regionally threatened.
- S3 = regionally of concern.
- S4 = regionally apparently secure.

^b USFWS Status:

- C2 = candidate for listing, with some evidence of vulnerability, but for which not enough data exist to support listing.
- E = endangered.
- T = threatened.
- T(S/A) = threatened due to similarity of appearance.

Sources: U.S. Fish and Wildlife Service.
Georgia Freshwater Wetlands and Heritage Inventory Program.

3.0 AQRV ANALYSIS

In the foregoing analysis, the maximum air quality impacts predicted to occur in the two Class I areas due to all sources formed the basis for the analysis. The AQRVs involved predicting worst-case maximum short- and long-term concentrations of SO₂ in the Class I areas, identifying AQRVs for Okefenokee NWA and Wolf Island NWA, and comparing the maximum predicted concentrations to lowest observed effect levels for AQRVs or analogous organisms. In conducting the assessment, several assumptions were made as to how pollutants interact with the different matrices, i.e., vegetation, soils, wildlife, and aquatic environment.

3.1 MAXIMUM PREDICTED SO₂ AND BERYLLIUM IMPACTS

3.1.1 PROPOSED PACKAGE BOILERS ONLY

An air quality impact assessment was conducted to determine SKC's proposed package boilers' maximum SO₂ impacts as well as the maximum Be concentration and deposition impacts at the Okefenokee and Wolf Island NWAs.

The Industrial Source Complex Short-Term (ISCST) model (Version 92062) was used to compute both maximum concentration and total deposition. Maximum impacts were predicted for the same 11 receptors used for the PSD Class I impact assessment (see Table 6-7 of the PSD report). Meteorological data used in the ISCST2 consisted of the same 5-year record used for the AAQS and PSD impact assessment, which consists of surface observations from Jacksonville and upper-air data from Waycross for the years 1983 to 1987. Emissions for the proposed package boilers are provided in Table 2-3 of the PSD report, and stack and operating data are provided in Table 2-1 of the report. Information on particle sizes was obtained from AP-42 and was included in the deposition modeling. Table 3-1 presents a summary of the particle size distribution used for the modeling.

The results of the SO₂ and Be concentration modeling for the package boilers are presented in Table 3-2. Impacts are presented for both NWAs for the annual, 24-hour, 8-hour, 3-hour, and 1-hour averaging times.

The results of the Be deposition modeling for the package boilers are presented in Table 3-3. Impacts are presented for both NWAs for the annual, 24-hour, 8-hour, 3-hour, and 1-hour averaging times.

Table 3-1. Particle Size Distribution for SKC Package Boilers

Particle Diameter (μm)		Mean Mass	Mass Fraction	Settling Velocity		Reflection Coefficient
Range				(cm/s)	(m/s)	
0 - 0.625		0.039	0.02	4.6E-06	4.6E-08	1.00
0.625 - 1		0.644	0.06	1.2E-03	1.2E-05	1.00
1 - 1.25		1.130	0.01	3.8E-03	3.8E-05	1.00
1.25 - 2.5		1.942	0.03	1.1E-02	1.1E-04	1.00
2.5 - 6		4.477	0.18	6.0E-02	6.0E-04	1.00
6 - 10		8.162	0.20	2.0E-01	2.0E-03	1.00
10 - 15		12.661	0.18	4.8E-01	4.8E-03	0.84
15 - 25		20.402	0.32	1.2E+00	1.2E-02	0.78

Source: AP-42 Table 1.3-4 (Uncontrolled Industrial Boilers Firing Distillate Oil).

Table 3-2. Maximum Predicted Package Boiler SO₂ and Be Impacts at the Okefenokee NWA and Wolf Island NWA

Averaging Time	Maximum Concentration	
	SO ₂ (μg/m ³)	Be (10 ⁻¹² g/m ³)
<u>OKEFENOKEE NWA</u>		
Annual	0.033	0.16
24-Hour	0.74	3.69
8-Hour	1.66	8.27
3-Hour	3.05	15.20
1-Hour	6.25	31.16
<u>WOLF ISLAND NWA</u>		
Annual	0.019	0.0095
24-Hour	0.40	2.00
8-Hour	0.93	4.64
3-Hour	2.25	11.22
1-Hour	5.58	27.82

Note: All short-term concentrations are highest predicted in 5 years.

Table 3-3. Maximum Predicted Package Boiler Be Depositions at the Okefenokee NWA and Wolf Island NWA

Averaging Time	Maximum Deposition Rate (10^{-6} g/m ²)
<u>OKEFENOKEE NWA</u>	
Annual	0.00733
24-Hour	0.00038
8-Hour	0.00033
3-Hour	0.00022
1-Hour	0.00015
<u>WOLF ISLAND NWA</u>	
Annual	0.00236
24-Hour	0.00015
8-Hour	0.00011
3-Hour	0.00010
1-Hour	0.00009

Note: All short-term depositions are highest predicted in 5 years.

3.1.2 CUMULATIVE SOURCE IMPACT

The SO₂ cumulative source concentration was determined at both the Okefenokee and Wolf Island NWAs. The SO₂ emission inventory utilized for the analysis was the same as was used for the SO₂ AAQS impact assessment. This inventory includes the proposed package boilers and all background SO₂ sources and is presented in Table D-1, Appendix D of the PSD report. The receptors and meteorological database are the same as those used for the AQRV analysis for the package boilers only.

The results of the SO₂ cumulative source modeling are presented in Table 3-4. Impacts are presented for both NWAs for the annual, 24-hour, 8-hour, 3-hour, and 1-hour averaging times.

3.2 VEGETATION

The gaseous concentrations ($\mu\text{g}/\text{m}^3$) of SO₂ due to all Jacksonville-area sources plus a background concentration were used in the determination of impacts on vegetation. SO₂ is believed to interact predominantly with foliage and this is considered the major route of entry into plants. In this assessment, 100 percent of the SO₂ in the ambient air was assumed to interact with the vegetation.

For beryllium, the annual deposition amount (in g/m^2) due to the proposed SKC package boilers was assumed to partition into the soil (bulk density of 0.65 g/cc for Okefenokee NWA and 1.40 g/cc for Wolf Island NWA) to a depth of 10 cm (8, 9). From this soil concentration, it was assumed that equal partitioning would ensue into dry plant matter. These values are considered to be quite conservative due to the assumption that all of the elements would be 100 percent available for plant uptake and would be internalized in plant tissue at a concentration equal to that of the soil.

3.2.1 SULFUR DIOXIDE

SO₂ at elevated levels in the ambient air has long been known to cause injury to plants. Acute SO₂ injury usually develops within a few hours or days of exposure and symptoms include marginal, flecked, and/or intercostal necrotic areas which initially appear water-soaked and dullish green. This injury generally occurs to younger leaves. Chronic injury usually is evident by signs of chlorosis, bronzing, premature senescence, reduced growth and possible tissue necrosis (10). Background levels of sulfur dioxide range from 2.5 to 25 $\mu\text{g}/\text{m}^3$.

Table 3-4. Maximum Predicted SO₂ Cumulative Source Concentrations at the Okefenokee NWA and Wolf Island NWA

Averaging Time	Maximum Concentration (µg/m ³)
<u>OKEFENOKEE NWA</u>	
Annual	4.9
24-Hour	52.3
8-Hour	134.5
3-Hour	181.9
1-Hour	318.4
<u>WOLF ISLAND NWA</u>	
Annual	3.2
24-Hour	39.3
8-Hour	83.8
3-Hour	174.2
1-Hour	389.6

Note: All short-term concentrations are highest predicted in 5 years.

Many studies have been conducted to determine the effects of high concentration, short-term SO₂ exposure on natural community vegetation. Sensitive plants include lichens, ragweed, legumes, blackberry, southern pine, and red and black oak. These species are injured by exposure to 3-hour SO₂ concentrations from 790 to 1,570 µg/m³. Intermediate plants include locust and sweetgum. These species are injured by exposure to 3-hour SO₂ concentrations from 1,570 to 2,100 µg/m³. Resistant species (injured at concentrations above 2,100 µg/m³ for 3 hours) include white oak and dogwood (10).

A study of native Floridian species (12) demonstrated that cypress, slash pine, live oak, and mangrove exposed to 1,300 µg/m³ SO₂ for 8 hours were not visibly damaged. This supports the levels cited by other researchers on the effects of SO₂ on vegetation. A corroborative study (7) demonstrated that approximately 20 percent of a cross-section of plants ranging from sensitive to tolerant were visibly injured at 3-hour SO₂ concentrations of 920 µg/m³.

Two lichen species indigenous to Florida exhibited signs of SO₂ damage in the form of decreased biomass gain and photosynthetic rate as well as membrane leakage when exposed to concentrations of 200-400 µg/m³ for 6 hours/week for 10 weeks (4).

When the predicted maximum 8-hour SO₂ concentrations at Okefenokee NWA and Wolf Island NWA (134 and 84 µg/m³, respectively), with the SKC package boilers operating, are compared to the concentrations causing injury to native species, it is evident that SO₂-sensitive species (or more tolerant species) would not be damaged by predicted impacts. By comparing the SO₂ concentration of 134 µg/m³ with the concentrations that cause plant injury, it can be shown that the amount of SO₂ in the wilderness area is 0.67 of the most conservative concentration (200 µg/m³) that caused injury to SO₂-sensitive species. However, it is important to realize that this impact represents the worse case 8-hour exposure predicted to occur during five years of meteorological data. During the majority of the time, impacts would be much lower than this maximum level. Additionally, the 8-hour SO₂ concentrations at Okefenokee NWA and Wolf Island NWA due to the SKC package boilers only are 2 and 1 µg/m³, respectively. These values are between 0.5 and 1.0 percent of the concentration that caused damage for an 8-hour exposure period.

The 24-hour SO₂ concentrations predicted within the wilderness areas (52 µg/m³ at Okefenokee NWA and 39 µg/m³ at Wolf Island NWA) represent levels which are lower than those known to

cause damage to test species. Jack pine seedlings exposed to SO₂ concentrations from 470 to 520 µg/m³ for 24 hours demonstrated inhibition of foliar lipid synthesis; however, this inhibition was reversible (6). Black oak exposed to 1,310 µg/m³ SO₂ for 24 hours a day for 1 week demonstrated a 48 percent reduction in photosynthesis (1). By comparison of these levels, it is apparent that the modeled 24-hour SO₂ concentrations are well below (i.e., 11 percent) of the concentrations that caused damage in SO₂-sensitive plants. The predicted annual concentrations of SO₂ (3 to 5 µg/m³) merely add slightly to the background level (3 µg/m³) of this gas (10) and pose minimal threat to area vegetation.

3.2.2 BERYLLIUM

Toxicity of plants has been reported at concentrations of 2 µg/g Be in liquid culture (3). By comparison to the predicted annual amount of Be absorbed by vegetation in the Class I areas (1.1 x 10⁻⁷ µg/g for Okefenokee NWA and 5.1 x 10⁻⁸ µg/g for Wolf Island NWA), it can be estimated that the level of beryllium for either wilderness area is between 2.5 and 5.5 x 10⁻⁸ of the value at which retardation of growth occurred .

3.3 SOILS

3.3.1 SULFUR DIOXIDE

The soils of Okefenokee NWA are generally classified as Terric Medisaprists (8). As such, these soils are poorly drained and contain acidic muck in the upper soil profile. The soils of Wolf Island NWA are generally classified as Terric Sulfihemists (9). These soils are tidally influenced twice daily and slightly acidic. Additionally, the upper soil profile contains mucky peat and has a noticeable sulfur smell. Since the Okefenokee NWA soils are highly acidic in nature, and the Wolf Island NWA soils are tidally influenced daily, it is apparent that the minimal amount of SO₂ (in the form of H₂SO₄) (due to fallout by precipitation) would have little if any impact to these soils.

3.3.2 BERYLLIUM

Levels of beryllium in uncontaminated soils are in the range of 1 µg/g (5). From the previous determination for vegetation exposure, it was determined that between 1.1 x 10⁻⁷ and 5.1 x 10⁻⁸ µg/g of Be would be added to either wilderness area's soil annually. From these concentrations, it is apparent that the impacts from the proposed package boilers are insignificant in terms of beryllium loading to the wilderness area soils.

3.4 WILDLIFE

3.4.1 SULFUR DIOXIDE

Lowest observed effect values of SO₂ reported to cause physiological and behavioral changes in animals (primarily laboratory animals) range from 427 µg/m³ for 1 hour to 13 to 157 µg/m³ daily for 5 months (10). By comparison, the 1-hour total predicted concentrations of SO₂ at Okefenokee NWA and Wolf Island NWA (318 and 389 µg/m³, respectively) are near but below those values that have been reported to cause some physiological changes in animals. It is important to realize that the predicted 1-hour impact is the worst-case scenario for 5 years of meteorological conditions. In addition, these changes if they occur are not significant since they are short-term and reversible and assume exposure of the animal would be 1 hour of continuous exposure at a given location in the Class I area. Additionally, the 1-hour SO₂ concentration at the wilderness areas due to SKC boiler emissions only is 6 µg/m³. This value is less than 1.5 percent of the concentration that caused physiological changes for a 1-hour exposure period.

By comparison of the annual total predicted concentrations of SO₂ at Okefenokee NWA and Wolf Island NWA (5 and 3 µg/m³, respectively), it is apparent that gaseous levels are less than that which caused physiological and behavioral changes (13 µg/m³). Again, it is important to realize that the annual SO₂ concentrations at the wilderness areas due to SKC boiler emissions only are between 0.02 and 0.03 µg/m³. These values are 0.2 percent of the concentration that caused physiological changes for an annual exposure period.

3.4.2 BERYLLIUM

The LD₅₀ of Be in mice was reported to be 0.5 mg/kg (3). By comparing the amount of Be in vegetation to that consumed by a 1 kg herbivore, it is apparent that the animal would have to ingest between 5 x 10⁶ and 1 x 10⁷ kg plant matter to achieve a toxic dose of Be. As witnessed by the soil analysis, levels of added Be do not add significantly to the background levels of Be, and should therefore not measurably increase the inherent amount of this element in the wilderness areas.

3.5 AQUATIC ENVIRONMENT

3.5.1 SULFUR DIOXIDE

The Okefenokee NWA drains into the St. Mary's River Basin. The water in this area is characterized as having a pH range of 3.5-4.0 (2). Since the high acidity is naturally occurring

and is not due to anthropomorphic inputs, aquatic species in this area are already adapted to a low pH environment. It is not expected that predicted SO₂ concentrations in Okefenokee NWA will result in any measurable change in acidity of the aquatic environment.

The Wolf Island NWA is a tidal marsh area that is influenced by ocean tides daily. Because the ocean serves as a large buffer for elements such as carbon and sulfur, it is appropriate to conclude that acidic precipitation would not significantly influence the aquatic environment in this area.

3.5.2 BERYLLIUM

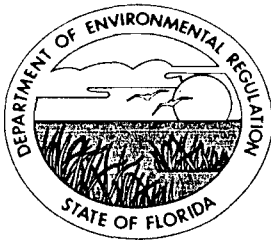
The acute and chronic toxicity of Be to aquatic organisms is reported to be as low as 5.3 and 130 µg/L, respectively (11). If the total annual deposition of Be was distributed to a 6 inch water column, the concentrations of Be in water at Okefenokee NWA and Wolf Island NWA would be 5×10^{-5} and 2.0×10^{-5} µg/L, respectively. Assuming all of the Be was available for interaction with living organisms, the predicted values would be between 9.4×10^{-6} and 1.5×10^{-7} of the values at which toxicity to aquatic organisms was reported.

4.0 SUMMARY

In summary, it is apparent that large margins of safety exist for all matrices examined with respect to the effects of SO₂ and Be on the wilderness areas. In certain cases, predicted maximum SO₂ levels were near the published lowest observed effect values. However, it must be reiterated that the SO₂ analyses were based on total SO₂ emissions from the Jacksonville area. When the SO₂ emissions from Seminole Kraft boilers are examined separately, it is concluded that these boilers will add minimally to the impacts in the Class I areas.

REFERENCES

1. Carlson, R.W. 1979. Reduction in the Photosynthetic Rate of Acer quercus and Fraxinus Species Caused by Sulphur Dioxide and Ozone. *Environ. Pollut.* 18:159-170.
2. Florida Department of Environmental Regulation (FDER). 1990. 1990 Florida Water Quality Assessment 305(b) Technical Appendix.
3. Gough, L.P., H.T. Shacklette, and A.A. Case. 1979. Element Concentrations Toxic to Plants, Animals, and Man. United States Geological Survey Bulletin 1466. USDI, Washington, DC.
4. Hart, R., P.G. Webb, R.H. Biggs, and K.M. Portier. 1988. The Use of Lichen Fumigation Studies to Evaluate the Effects of New Emission Sources on Class I Areas. *J. Air Poll. Cont. Assoc.* 38:144-147.
5. Kabata-Pendias, A., and H. Pendias. 1984. Trace Elements in Soils and Plants. CRC Press, Boca Raton, FL.
6. Malhotra, S.S. and A.A. Kahn. 1978. Effect of Sulfur Dioxide Fumigation on Lipid Biosynthesis in Pine Needles. *Phytochemistry* 17:241-244.
7. McLaughlin, S.B. and N.T. Lee. 1974. Botanical Studies in the Vicinity of the Widows Creek Steam Plant. Review of Air Pollution Effects Studies, 1952-1972, and Results of 1973 Surveys. Internal Report I-EB-74-1, TVA.
8. Soil Survey of Columbia County, Florida. USDA Soil Conservation Service in cooperation with University of Florida, Institute of Food and Agricultural Sciences, Agricultural Experiment Stations, and Soil Science Department.
9. Soil Survey of Nassau County, Florida. USDA Soil Conservation Service in cooperation with University of Florida, Institute of Food and Agricultural Sciences, Agricultural Experiment Stations, and Soil Science Department.
10. Newman, J.R. and R.K. Schreiber. 1988. Environmental Toxicology and Chemistry 7:381-390.
11. United States Environmental Protection Agency (EPA). 1986. Quality Criteria for Water (The Gold Book).
12. Woltz, S.S. and T.K. Howe. 1981. Effects of Coal Burning Emissions on Florida Agriculture. *In: The Impact of Increased Coal Use in Florida. Interdisciplinary Center for Aeronomy and (other) Atmospheric Sciences. University of Florida, Gainesville, Florida.*



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

January 5, 1993

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. L. A. Stanley, General Manager
Seminole Kraft Corporation
9469 East Port Road
Jacksonville, Florida 32229

Dear Mr. Stanley:

Re: Permit Application AC16-222359, PSD-FL-198
New Package Boilers

The Department received KBN's incompleteness responses dated December 22 and 23, 1992. It appears that the full 30-day review period for incompleteness responses may be required to determine the sufficiency of the data submitted. However, rather than waiting the full 30 days to make all of our incompleteness follow-up requests in one letter, our review will be expedited by requesting the following additional information separately at this time:

1. Please provide copies of documents showing the applicant's efforts to obtain a firm natural gas contract and the gas supplier's responses to those efforts.
2. Please provide copies of documents showing the gas supplier's estimate of future gas availability to the applicant in the absence of a firm gas contract.

If there are any questions regarding the above, please contact Preston Lewis or John Reynolds at (904) 488-1344.

Sincerely,

John C. Brown, Jr., P.E.
Administrator
Air Permitting and Standards

JCB/JR/plm

cc: A. Kutyna, NED
R. Roberson, BESD
J. Harper, EPA
B. Mitchell, NPS
B. Collum, GEPA
C. Hurd, SKC
D. Buff, KBN

P 062 921 944



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Return Receipt Showing to Whom, Date, and Addressee's Address	
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PS Form 3800, June 1991

PS Form 3811, July 1983 447-646

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2. Restricted Delivery.

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R.A. Stanley
Seniorle Kraft Corp.
4169 E. Post Rd
Dekronville, FL 32229

4. Type of Service: Registered Insured Certified COD Express Mail

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P062 921 944

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6. Signature - Agent
X *[Signature]*

7. Date of Delivery

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DOMESTIC RETURN RECEIPT



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

December 23, 1992

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. L. A. Stanley, General Manager
Seminole Kraft Corporation
9469 East Port Road
Jacksonville, Florida 32229

Dear Mr. Stanley:

Re: Air Construction Permit Application AC16-222359, PSD-FL-198
New Package Boilers

Additional information is required to complete the subject application received on November 24, 1992. The incompleteness items are listed below:

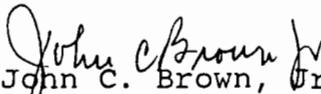
1. The applicant is apparently requesting that the proposed boilers be permitted for both gas and oil on a full-time basis. Since a BACT determination is required, please explain why the boilers should not be permitted with natural gas as the primary fuel and oil as a backup based on expected hours of gas curtailment. It is anticipated that BACT review will result in a requirement to use natural gas, except for backup during periods when gas may not be available.
2. To evaluate the extent to which test data are representative of emissions occurring at near-maximum permitted operating rates, the application should indicate the monitored operating rates during tests which are used for emission reduction credits (along with all test dates). These operating rates need to be compared to actual operating loads for the two year representative period 1990-1991. Baseline emissions should be determined on the basis of the two year representative period instead of 1991 only.
3. It appears that only the first page of EPA's letter dated April 4, 1990, was included in the application. Please provide the remaining pages.
4. Please provide an air quality-related values analysis (AQRV) of the impact this project will have on the Okefenokee National Wilderness Area and the Wolf Island National Wilderness Area for the pollutants SO₂ and Be. The AQRV analysis includes

Mr. L. A. Stanley
Seminole Kraft Corp.
Page 2

impacts to soil, vegetation, wild life and the aquatic environment.


If there are any questions regarding this letter, please contact Preston Lewis or John Reynolds of our staff at (904) 488-1344.

Sincerely,


John C. Brown, Jr., P.E.
Administrator
Air Permitting and Standards

JCB/JR/plm

cc: A. Kutyna, NED
R. Roberson, BESD
J. Harper, EPA
B. Mitchell, NPS
B. Collum, GEPD
C. Hurd, SKC
D. Buff, KBN

SENDER: • Complete items 1 and/or 2 for additional services. • Complete items 3 and 4a & b. • Print your name and address on the reverse of this form so that we can return this card to you. • Attach this form to the front of the mailpiece or on the back if space does not permit. • Write "Return Receipt Requested" on the mailpiece below the article number. • The Return Receipt Fee will provide you the signature of the person delivered to and the date of delivery.		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.	
3. Article Addressed to: Mr. L. A. Stanley, General Mgr. Seminole Kraft Corporation 9469 Eastport Road Jacksonville, FL 32229		4a. Article Number P 062 922 018	
5. Signature (Addressee) _____		4b. Service Type <input checked="" type="checkbox"/> Registered <input checked="" type="checkbox"/> Insured <input type="checkbox"/> Certified <input checked="" type="checkbox"/> COD <input type="checkbox"/> Express Mail <input checked="" type="checkbox"/> Return Receipt for Merchandise	
6. Signature (Agent) 		7. Date of Delivery _____	
PS Form 3811, November 1990		8. Addressee's Address (Only if requested and fee is paid) _____	
		DOMESTIC RETURN RECEIPT	

P 062 922 018

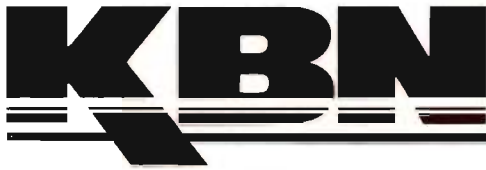


Receipt for Certified Mail

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

PS Form 3800, June 1991

Sent to	
Mr. L. A. Stanley, Seminole	
Street and No. Kraft	
9460 Eastport Road	
P.O., State and ZIP Code	
Jacksonville, FL 32229	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	
Mailed: 12-23-92	
Permit: AC 16-222359	
PSD-FL-198	



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DEC 24 1992

Division of Air Resources Management

December 22, 1992

Mr. John Reynolds
Bureau of Air Management
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Updates to Seminole Kraft's Proposed Package Boilers PSD Application

Dear Mr. Reynolds:

At the request of Seminole Kraft Corporation (SKC), the following items are provided to update and further clarify several issues within the above-referenced application submitted to the Florida Department of Environmental Regulation (FDER) last month.

Item 1--Submittal of boiler production rates for periods of emissions testing as provided in the PSD application.

OFFSETS
DETERMINED
BY BM
SINCE HE
HANDLED
PRIOR TEST
REQMT.

Item 2--Tables 3-3 through 3-6 of the PSD application have been revised to indicate the emission offsets that would be calculated for all sources as based on the average operating hours for the years 1990 and 1991 instead of for 1991 only. This change affects the operating hours used for the average source, excluding Lime Kiln 1, by approximately 1.2 percent. The operating hours for Lime Kiln 1 change approximately 39 percent. This change is not expected to have a significant effect on the predicted maximum source impacts.

Item 3--A complete copy of the EPA letter from Jewell A. Harper to C. H. Fancy concerning Creditable Emissions Reductions for the proposed project. The second page of this letter was not copied in Appendix C of the original report.

Item 4-- For the purpose of this current application, please consider the proposed package boilers as operating with the two following fuels: the primary fuel is to be considered No. 2 fuel oil; the backup fuel is to be considered natural gas. The reason for this change is that SKC currently does not have a firm natural gas contract in place. As a result of this change, the third paragraph on Page 1-1 and the last paragraph on Page 2-1 have been modified.

If you need further information or have any questions, please call me.

Sincerely,

Steven R. Marks/ICB

Steven R. Marks
Senior Meteorologist

Enclosure

cc: Mike Riddle
Curt Barton
Craig Hurd

David Buff
File (2)

12169A1/8

KBN ENGINEERING AND APPLIED SCIENCES, INC.

1034 Northwest 57th Street Gainesville, Florida 32605 904/331-9000 FAX: 904/332-4189

ITEM 1

3. PROCESS OPERATION

The sections below briefly describe the process performance during emission testing for each source. Each of the five sources maintained a wet scrubber as the primary control device. The recovery furnaces also utilized an electrostatic precipitator to reduce particulate emissions. A complete log of all process parameters is included in Appendix I.

3.1 No. 1 Bark Boiler

The target process rate for the No. 1 Bark Boiler during the emission testing was approximately 135,000 lbs. of steam production per hour. The boiler operated on a primary fuel of bark supplemented with one fuel gun injector. The individual steam production rates (in lbs./hr.) during the five test runs performed 07-08 January, 1991, were 131,000 (run 1), 135,000 (run 2), 133,000 (run 3), 135,000 (run 4), and 135,000 (run 5). The average was a consistent 133,800 lbs. of steam per hour.

3.2 No. 2 Bark Boiler

The target process rate for the No. 2 Bark Boiler during the emission testing was 135,000 lbs. of steam production per hour. The boiler operated on a primary fuel of bark supplemented with one fuel gun injector. The individual steam production rates (in lbs./hr.) during the three test runs performed 09 January, 1991 were 130,000 (run 1), 130,000 (run 2), and 129,000 (run 3). The average was a consistent 130,000 lbs. of steam per hour.

3.3 No. 1 Recovery Boiler

The No. 1 Recovery Boiler was operated at an average of 93 gallons of black liquor flow per minute. The black liquor solids content fluctuated from 66.3% to 67.8%. Emission testing was performed 10 January, 1991.

3.4 No. 2 Recovery Boiler

The No. 2 Recovery Boiler was operated at an average of 116 gallons of black liquor flow per minute. The black liquor solids content fluctuated from 66.4% to 68.4%. Emission testing was performed 11-12 January, 1991.

3.5 No. 3 Recovery Boiler

The No. 3 Recovery Boiler was operated at an average of 115 gallons of black liquor flow per minute. The black liquor solids content fluctuated from 66.7% to 67.4%. Emission testing was performed 12-13 January, 1991.

IEA-192-91-10

OPERATOR: J. J. JAMES / JP GARTH
3-11 Alvin Simmons
11-7 LA BRIGHT

Seminole Kraft Corporation
Jacksonville, Fla.
BOILER PERFORMANCE DAILY RECORD

Date Ending 1/8/91

PM 13

Shift	No. 1 Bark Boiler	No. 2 Bark Boiler										Seminole Plant																									
		Grate Area	Grate Area	Grate Area	Grate Area	Grate Area	Grate Area	Grate Area	Grate Area	Grate Area	Grate Area	Grate Area	Grate Area	Grate Area	Grate Area	Grate Area																					
800 a.m.	7	96	104	630	100	100	120	371	280	579	330	-	-	27	712	12.8	3.4	17	76	87	625	100	100	98	-	119	578	270	-	-	78	710	127	3.1	13	800	
800 a.m.	8	115	103	630	100	100	113	100	120	526	290	1	60	76	610	11.9	3.1	16	72	85	620	100	100	95	-	117	578	270	-	-	78	707	127	3.1	12	800	
800 a.m.	9	135	103	625	100	100	118	976	620	529	340	1	70	73	620	12.4	3.4	18	76	87	610	100	100	90	-	119	580	270	-	-	78	703	122	3.1	14	800	
800 a.m.	10	135	103	630	100	100	118	371	620	534	340	1	70	73	615	12.4	3.4	17	80	87	620	100	100	92	-	117	580	270	-	-	87	709	123	3.1	14	800	
800 a.m.	11	108	104	630	100	100	121	378	620	531	350	1	70	85	615	12.9	3.5	17	90	87	620	100	100	95	-	117	599	270	-	-	95	707	125	3.1	13	800	
800 a.m.	12	127	104	630	100	100	126	378	620	530	340	1	75	105	613	12.8	3.5	17	95	86	630	100	100	98	-	117	601	270	-	-	95	705	124	3.0	13	800	
800 p.m.	1	135	104	630	100	100	124	378	620	524	350	1	75	105	618	12.9	3.5	17	91	86	630	100	100	97	-	117	590	270	-	-	95	704	123	3.1	13	800	
800 p.m.	2	135	104	630	100	100	124	378	620	522	350	1	75	105	615	12.8	3.5	17	95	86	630	100	100	97	-	116	597	270	-	-	95	709	124	3.1	13	800	
800 p.m.	3	134	107	630	100	100	126	378	620	525	350	1	75	86	620	12.9	3.5	17	87	86	630	100	100	97	-	117	598	270	-	-	95	707	124	3.1	13	800	
800 p.m.	4	135	104	630	100	100	126	378	620	526	350	1	75	105	620	12.9	3.5	17	97	86	630	100	100	98	-	116	596	270	-	-	109	702	122	3.1	13	800	
800 p.m.	5	134	105	630	100	100	125	377	620	528	340	1	75	105	615	12.9	3.5	17	82	86	630	100	100	97	-	116	598	270	-	-	110	702	122	3.1	13	800	
800 p.m.	6	135	104	630	100	100	125	377	620	529	340	1	75	85	622	12.9	3.5	17	110	86	630	100	100	100	-	116	602	270	-	-	107	709	125	3.1	13	800	
800 p.m.	7	135	104	630	100	100	123	377	620	527	340	1	75	105	620	12.7	3.5	17	88	87	630	100	100	96	-	119	598	270	-	-	95	708	122	3.1	13	800	
800 p.m.	8	135	107	630	100	100	127	377	620	528	340	1	75	86	625	12.9	3.5	17	116	86	630	100	100	95	-	116	602	270	-	-	126	705	121	3.1	13	800	
800 p.m.	9	137	107	630	100	100	129	377	620	528	340	-	-	87	86	625	12.9	3.6	17	117	86	630	100	100	94	-	116	603	270	-	-	124	705	122	3.1	13	800
800 p.m.	10	137	107	630	100	100	129	377	620	528	340	-	-	83	86	625	12.9	3.6	17	95	86	630	100	100	94	-	117	598	270	-	-	103	707	122	3.1	13	800
800 p.m.	11	132	105	630	100	100	130	379	620	520	340	-	-	105	85	625	12.8	3.2	17	86	86	630	100	100	94	-	117	590	270	-	-	109	707	124	3.1	13	800
800 p.m.	12	132	105	630	100	100	130	379	620	525	340	-	-	105	85	628	12.8	3.2	17	83	86	630	100	100	93	-	115	603	270	-	-	123	703	120	3.1	13	800
800 a.m.	1	93	109	630	100	100	112	355	620	515	300	-	-	93	91	624	12.4	3.2	17	110	86	630	100	100	91	-	119	589	270	-	-	110	703	126	3.1	13	800
800 a.m.	2	97	106	630	100	100	116	350	620	514	300	-	-	87	91	630	12.2	3.2	17	95	85	630	100	100	91	-	117	581	270	-	-	103	702	125	3.1	13	800
800 a.m.	3	97	106	630	100	100	116	355	620	514	300	-	-	87	95	625	12.2	3.2	17	87	86	630	100	100	91	-	116	587	270	-	-	87	703	126	3.1	13	800
800 a.m.	4	96	105	630	100	100	116	367	620	514	300	-	-	80	95	627	12.1	3.1	17	95	85	625	100	100	90	-	117	581	270	-	-	75	706	126	3.1	13	800
800 a.m.	5	105	105	625	100	100	119	374	620	520	300	-	-	78	93	630	12.2	3.2	17	95	85	625	100	100	91	-	117	599	270	-	-	105	707	123	3.1	13	800
800 a.m.	6	105	105	630	100	100	114	374	620	525	300	-	-	78	95	630	12.2	3.2	17	75	86	630	100	100	90	-	116	601	270	-	-	95	707	122	3.1	13	800

BARK FEED SCREW SPEED
#1 _____
#2 _____
#3 _____
#4 _____

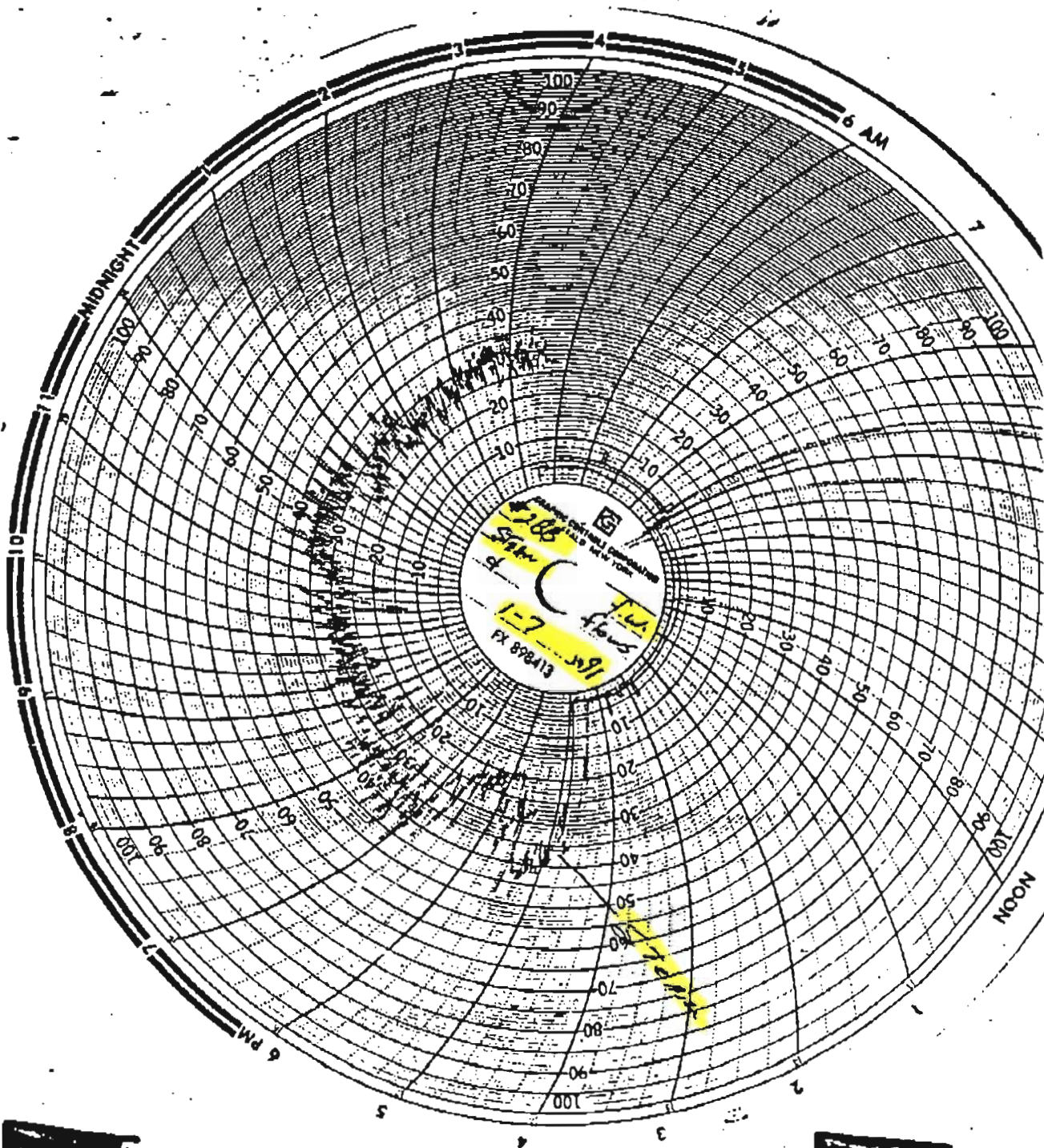
BARK FLOW
Time Down _____
Time Up _____
Reason for Dumping _____
Operator's Initials _____

BARK FEED SCREW SPEED
#1 _____
#2 _____
#3 _____
#4 _____

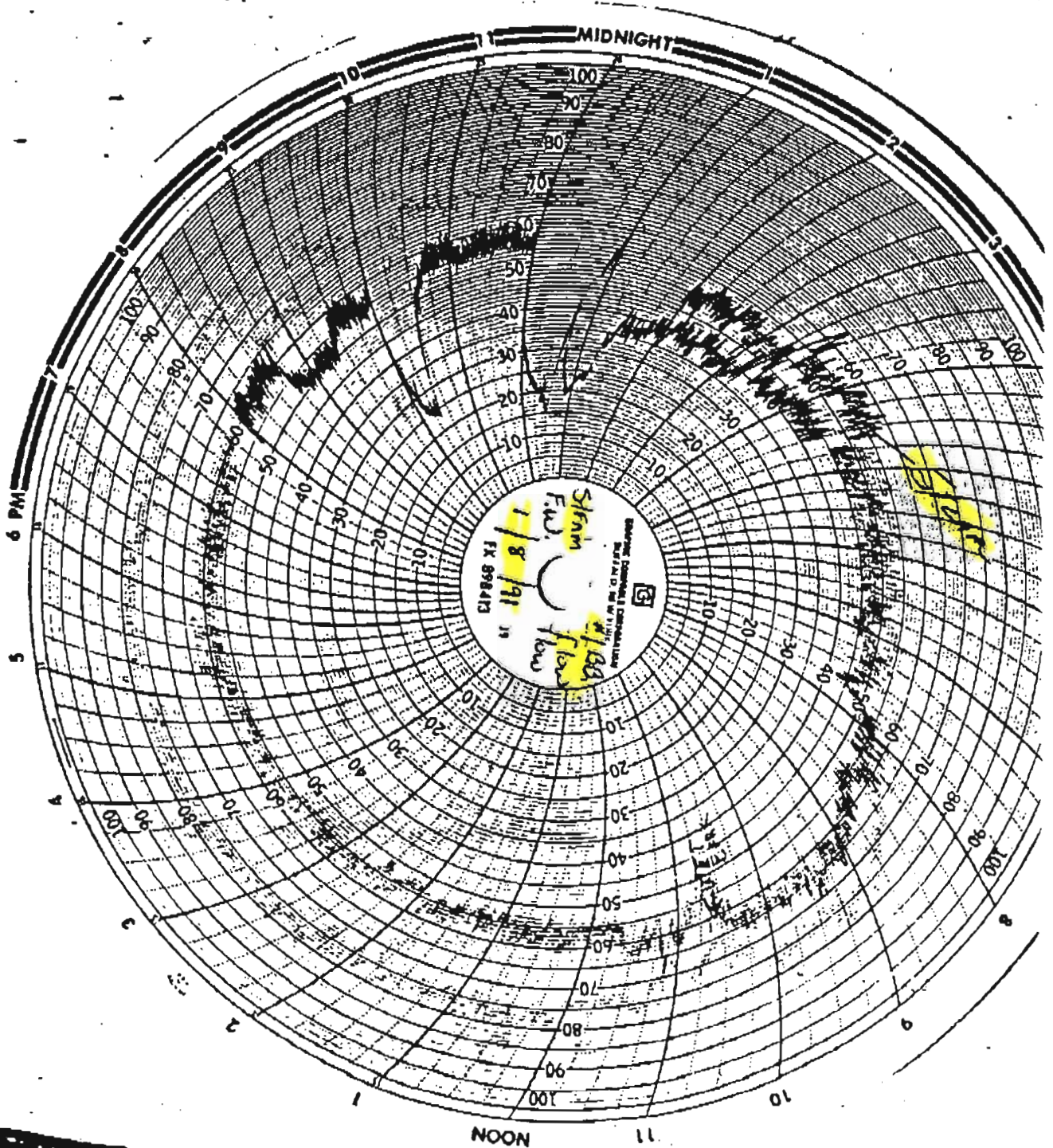
COMMENTS

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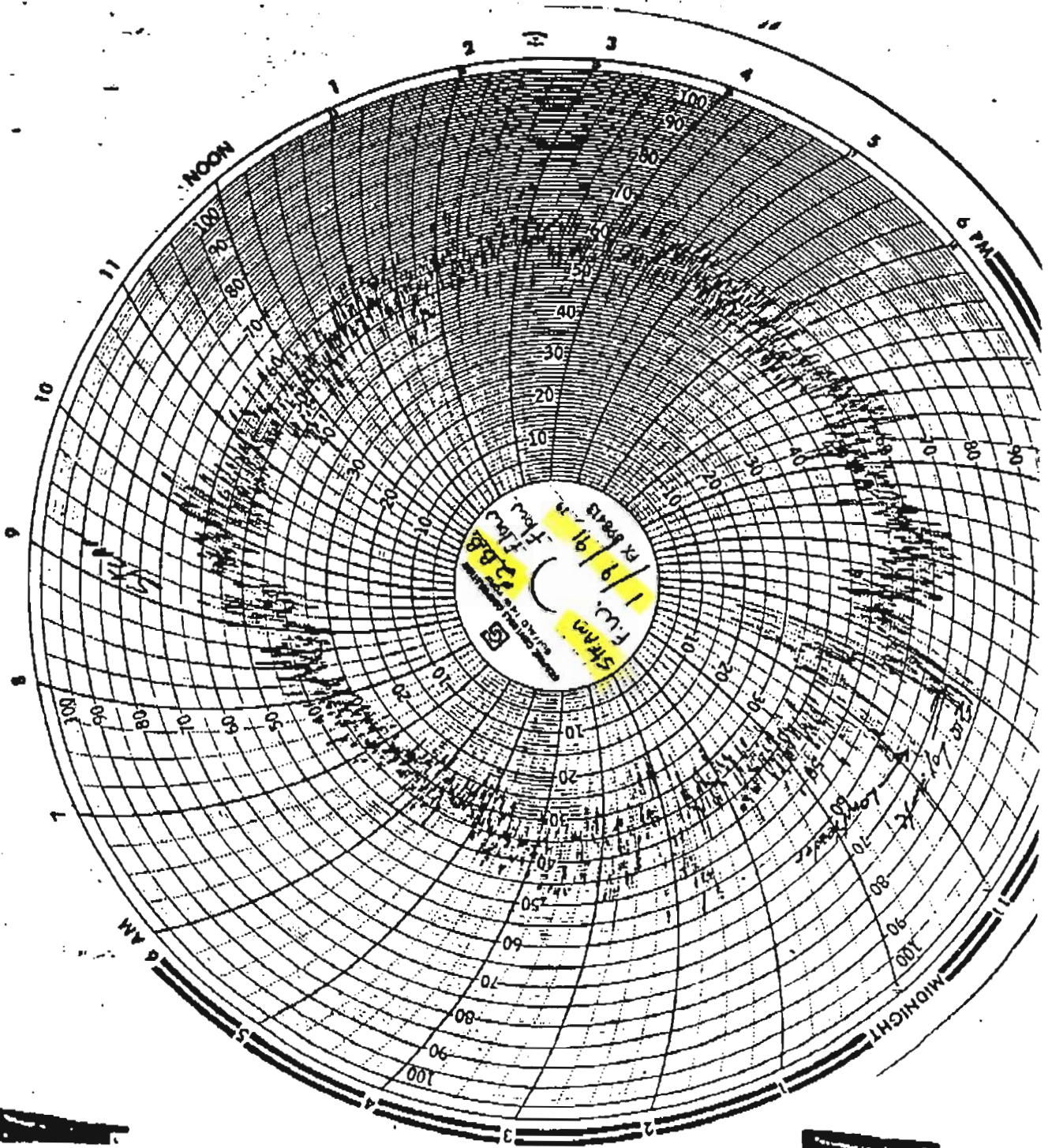
*Bark
Boiled*



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SEMINOLE KRAFT CORPORATION
JACKSONVILLE, FLORIDA

RECOVERY DAILY REPORT

DATE 1 10 19 91

RECEIVED 12/22 16:02 1992 AT 9049324189
DEC-22-1992 TUE 15:54 ID:SEMINOLE KRAFT
PAGE 7 (PRINTED PAGE 7)]
TEL NO: (904) 751-5822

TIME	BLACK LIQUOR					CASCADE EVAPORATOR					FORCED DRAFT			BOILER DRAFT						STEAM			GREEN LIQUOR				
	LIQUOR GPM	NOZZLE PRESSURE	PRIMARY HEATER TEMP	SECONDARY HEATER TEMP	SULFUR	PERCENT SOLIDS	RIGHT HAND AMPS.	LEFT HAND AMPS.	EXCESS DUTYGEN	BLACK LIQUOR FLOW	FLOW	INCHES PRIMARY	INCHES SECONDARY	TEMP.	FURNACE	AVG. FLOW	TEMP.	FIRST PASS	SECOND PASS	LSC DAMPER %	PRECIP. TEMP	CASCADE TEMP	SULFIDITY	STEAM FLOW	STEAM TEMP	STEAM PRESS.	TEST
7A	2	26	223	254		1500	43	9.5	95	39	1.0	3.0	240	114	300	104	14	15400.9	200	288	523	119	226	695	9.3	25.0	18
8A	2	27	224	254		1500	40	6.4	93	40	1.3	3.5	240	114	300	106	16	15404.4	204	288	534	136	220	695	9.2	15.5	19
9A	2	27	224	254		1500	43	9.3	93	40	1.3	3.0	240	114	300	106	15	15354.7	207	288	528	138	220	695	9.2	15.5	17
10A	2	28	223	254		1500	42	7.8	93	42	1.0	3.5	240	114	300	107	15	15505.3	209	297	546	122	222	695	9.2	15.0	10
11A	2	27	223	253		1500	40	8.0	93	42	1.0	3.1	240	114	300	106	13	15414.3	210	300	545	127	220	695	9.2	15.0	12
12N	2	27	223	253		1500	40	8.2	93	43	1.0	3.0	240	116	300	107	13	15516.6	209	301	539	128	220	695	9.2	15.0	12
1P	2	27	223	253		1500	42	9.0	93	42	1.0	3.0	240	110	300	106	13	15626.5	209	302	542	127	220	695	9.2	15.5	14
2P	2	28	224	254		1500	41	7.5	93	42	1.3	3.2	240	114	300	107	15	15726.2	210	303	545	120	220	695	9.0	15.0	14
3P	2	28	224	254		1500	40	6.9	93	40	1.2	3.4	238	112	300	107	15	15826.3	213	305	539	120	220	695	9.7	15.5	19
4P	2	27	223	253		1500	40	8.1	93	41	1.1	3.1	238	112	300	110	14	15926.2	212	307	545	128	220	695	10.3	16.5	13
5P	2	27	223	253		1500	40	7.1	93	41	1.4	3.3	238	113	300	118	12	16026.1	207	307	541	111	220	695	10.5	16.5	14
6P	2	28	224	254		1500	40	7.3	93	41	1.0	3.0	238	112	300	120	15	16126.3	208	309	548	120	220	695	9.9	16.5	12
7P	2	28	224	254		1500	40	7.0	93	41	1.3	3.3	238	112	300	130	15	16226.3	212	309	542	120	220	695	10.0	16.5	9
8P	2	28	224	254		1500	40	7.0	93	41	1.2	3.4	238	112	300	130	15	16326.3	212	309	542	120	220	695	10.0	16.5	9
9P	2	28	224	254		1500	40	7.0	93	41	1.2	3.4	238	112	300	130	15	16426.3	212	309	542	120	220	695	10.0	16.5	9
10P	2	28	224	254		1500	40	7.0	93	41	1.2	3.4	238	112	300	130	15	16526.3	212	309	542	120	220	695	10.0	16.5	9
11P	2	28	224	254		1500	40	7.0	93	40	1.2	3.0	238	112	300	130	15	16626.3	212	309	542	120	220	695	10.0	16.5	9
12M	2	28	224	254		1500	39	6.0	93	39	1.0	2.6	238	112	300	130	15	16726.3	212	306	525	120	220	695	10.0	16.5	9
1A	2	28	224	254		1500	39	7.0	93	39	1.0	2.0	238	112	300	130	15	16826.3	212	306	532	120	220	695	10.0	16.5	9
2A	2	28	224	254		1500	39	5.7	93	38	1.1	3.3	238	112	300	130	15	16926.3	207	303	517	120	220	695	10.5	16.5	9
3A	2	28	224	254		1500	38	5.0	94	38	1.0	3.4	238	112	300	130	15	17026.3	207	304	524	120	220	695	10.5	16.5	9
4A	2	28	224	254		1500	38	6.1	94	38	1.0	3.0	238	112	300	130	16	17126.3	205	307	532	120	220	695	10.5	16.5	9
5A	2	28	224	254		1500	38	6.1	94	38	1.0	3.0	238	112	300	130	16	17226.3	205	307	532	120	220	695	10.5	16.5	9

7:55 DRAFT TAP BROKE OFF, SPED BOILER TO 93 GPM
 8:25 DRAFT TAP WELDED BACK ON, CONTROLLED FOR 1/2 HOUR BACK IN MICH
 11:25 IEA STARTING STACK TEST 1st TEST #1 COMPLETE
 11:45 Rec'd at 205° 127°
 Changed RL Lines at 7:25 pm.
 Stack test completed at 5:00 pm Changed w/v 5:00 at 7:00

INTEGRATOR READINGS

TIME	STEAM	LIQUOR
6 AM		
2 PM		
10 PM		
6 AM		

SHIFT OPERATOR:
1. I. ANDRE

0.5

Best Available Copy

SEMINOLE KRAFT CORPORATION
JACKSONVILLE, FLORIDA

RECOVERY DAILY REPORT

#2

PH 1
DATE 1-12-1991

TIME	BLACK LIQUOR				CASCADE EVAPORATOR				FORCED DRAFT			BOILER DRAFT				STEAM			GREEN LIQUOR		T4						
	LIQUOR CON	NOZZLE PRESSURE	PRIMARY HEATER TEMP	SECONDARY HEATER TEMP	SULFUR	PERCENT SOLIDS	LEFT HAND AMPS.	EXCESS DIXTER	BLACK LIQUOR FLOW	FLOW	INCHES PRIMARY	INCHES SECONDARY	FURNACE	AVG. T R S	PRECIP. TEMP	PRECIP. TEMP	CASCADE TEMP	SULFIDITY	FLOW	TEMP		PRESS.	TEST	DEGREES BAUM.			
7 A	2	222	252	250	1600	68.2	5.1	5.8	116	5.9	1.8	5.8	235	702	2.4	17	140	69.0	68.5	366	331	775	171	177	165	18.5	18
8 A	2	222	252	250		68.2	5.1	5.8	118	5.8	1.6	5.6	235	701	2.9	17	158	67.6	67.7	367	328	765	171	177	166	17.0	9
9 A	2	222	252	250		68.4	4.8	5.8	115	5.3	1.4	5.1	235	718	3.0	17	158	67.6	67.5	366	331	762	171	177	166	15.0	26
10 A	2	222	252	250		68.4	4.8	5.8	116	5.1	1.7	5.5	236	715	2.8	17	158	67.6	67.4	368	329	762	171	177	165	16.0	9
11 A	2	222	252	250		68.4	4.8	5.8	115	5.0	1.4	5.7	236	710	2.0	16	128	66.7	68.0	374	335	777	171	177	165	15.5	18
12 H	2	222	251	251		68.5	5.7	5.8	117	5.2	1.6	5.6	236	711	2.1	17	132	66.9	68.0	371	329	759	171	177	166	16.5	10
1 P	2	222	251	251		68.5	5.7	5.8	117	5.2	1.4	5.5	236	711	1.7	17	132	66.9	68.3	359	325	767	171	177	166	17.0	4
2 P	2	222	251	251		68.5	5.7	5.8	115	5.4	1.5	5.3	236	708	1.2	16	132	67.2	67.9	359	329	767	171	177	166	17.0	5
3 P	2	222	251	251	14000	68.4	6.4	1.5	115	5.7	1.5	5.6	236	705	1.1	16	130	68.4	68.0	357	327	755	171	177	165	17.0	24
4 P	2	222	251	251	14000	68.4	6.4	1.4	115	5.4	1.6	5.6	236	700	1.6	16	130	68.4	68.0	358	327	765	171	177	166	16.5	16
5 P	2	222	251	251	14000	68.7	6.2	2.1	116	5.3	1.7	5.8	236	715	1.8	16	134	68.8	68.0	357	325	751	171	177	166	17.2	11
6 P	2	222	251	251	14000	68.7	6.2	2.1	115	5.6	1.7	5.8	236	705	1.6	16	137	68.8	68.0	357	330	759	171	177	166	17.2	12
7 P	2	222	251	251	14000	68.4	6.2	2.0	115	5.6	1.6	5.8	236	710	1.9	16	132	68.8	68.0	349	329	748	171	177	165	17.0	7
8 P	2	222	250	250	14000	68.3	6.2	2.1	115	5.3	1.8	5.8	236	713	1.6	16	134	68.3	68.0	347	326	754	171	177	166	16.0	21
9 P	2	222	250	250	14000	68.3	6.2	2.6	115	5.6	1.6	5.8	236	710	1.6	16	134	68.4	68.0	346	329	767	171	177	166	16.0	22
10 P	2	222	251	251	14000	68.4	6.2	3.0	115	5.5	1.6	5.6	236	720	2.3	16	130	67.6	68.0	347	326	747	171	177	166	16.0	17
11 P	2	222	251	251	14000	68.4	6.2	2.5	112	5.6	1.4	5.8	236	720	2.3	16	130	67.6	68.0	347	326	747	171	177	166	15.0	24
12 H	2	222	251	251	14000	68.4	6.2	2.1	112	5.6	1.4	5.8	236	711	2.1	16	130	67.6	68.0	349	323	753	171	177	166	15.5	2
1 A	2	222	250	250	14000	68.4	6.2	2.2	112	5.3	1.5	5.8	236	707	1.7	16	130	67.6	68.0	349	323	753	171	177	166	15.5	8
2 A	2	222	250	250	14000	68.4	6.2	1.8	112	5.0	1.8	5.8	236	707	1.1	16	130	67.6	68.0	349	323	753	171	177	166	15.5	8
3 A	2	222	250	250	14000	68.4	6.2	1.8	112	5.0	1.8	5.8	236	707	1.1	16	130	67.6	68.0	349	323	753	171	177	166	15.5	8
4 A	2	222	250	250	14000	68.4	6.2	1.8	112	5.0	1.8	5.8	236	707	1.1	16	130	67.6	68.0	349	323	753	171	177	166	15.5	8
5 A	2	222	250	250	14000	68.4	6.2	1.8	112	5.0	1.8	5.8	236	707	1.1	16	130	67.6	68.0	349	323	753	171	177	166	15.5	8
6 A	2	222	250	250	14000	68.4	6.2	1.8	112	5.0	1.8	5.8	236	707	1.1	16	130	67.6	68.0	349	323	753	171	177	166	15.5	8

INTEGRATOR READINGS

TIME	STEAM	LIQUOR
6 AM		
2 PM		
10 PM		
6 AM		

SHIFT OPERATOR:
J. J. P. [Signature]
D. C. [Signature]

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SEMINOLE KRAFT CORPORATION
JACKSONVILLE, FLORIDA

RECOVERY DAILY REPORT

3

DATE 1-13-1991

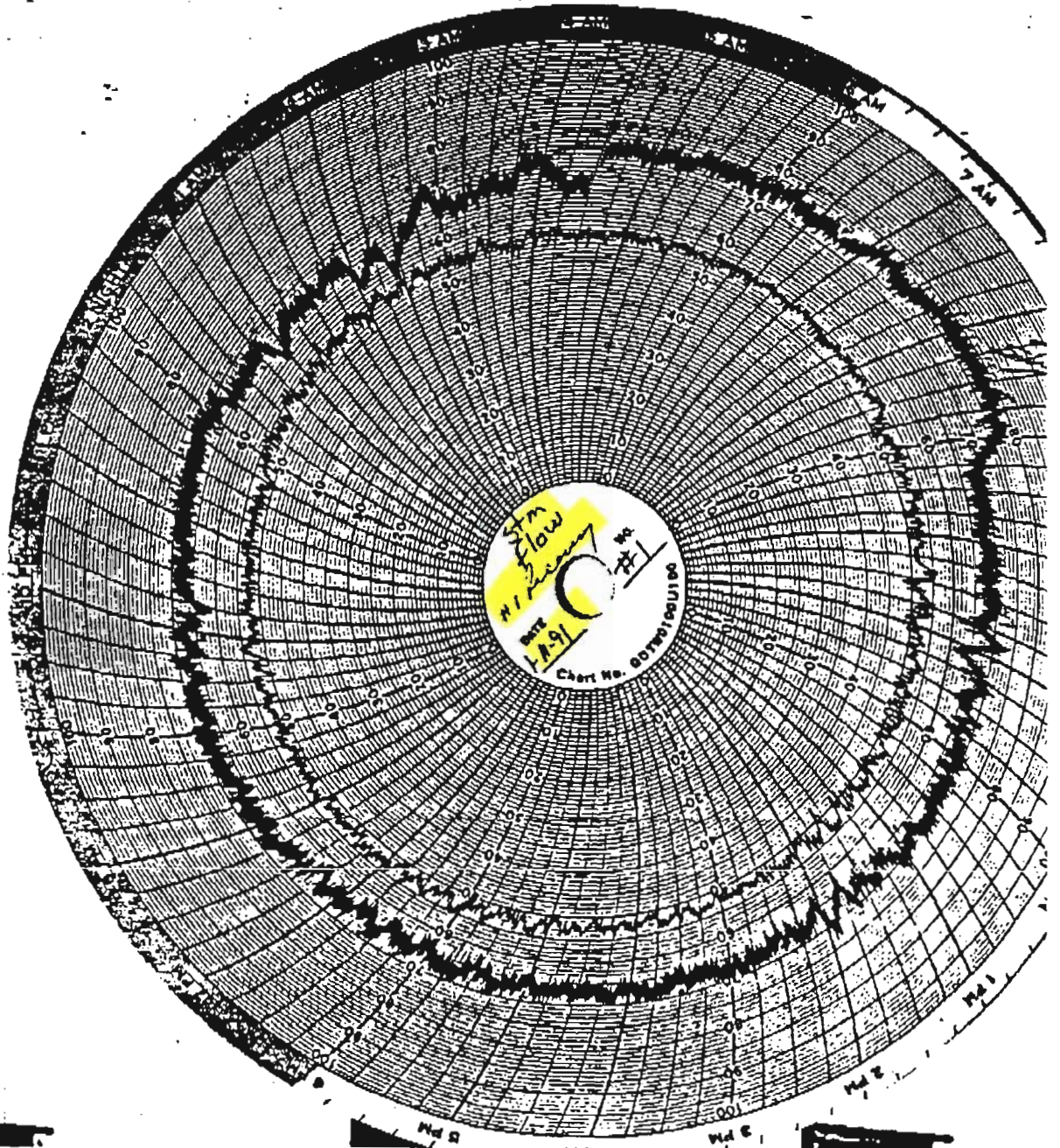
TIME	BLACK LIQUOR				CASCADE EVAPORATOR				FORCED DRAFT			BOILER DRAFT				STEAM			GREEN LIQUOR		Z.A.						
	LIQUOR GR	NOZZLE PRESSURE	PRIMARY HEATER TEMP	SECONDARY HEATER TEMP	SULFUR	PERCENT SOLIDS	RIGHT HAND PPS	LEFT HAND PPS	EXCESS DISTGR	BLACK LIQUOR FLOW	FLOW	INCHES PRIMARY	INCHES SECONDARY	FINANCE	AVG. TRS	PRECIP. TEMP	PRECIP. TEMP	CASCADE TEMP	SULFIDITY	FLOW		TEMP	PRESS.	TEST	DEGREES BAUM		
7 A	2	16.0	225	250	1480	67.5	55.9	53	2.6	105	30	1.6	4.2	12.4	1.8	20	114	650	650	318	320	653	140	220	650	15.0	11
8 A	2	18	225	250				53	2.6	116	29	1.5	4.4	12.8	1.5	23	127	640	640	323	326	649	156	210	640	16.0	3
9 A	2	20	225	251		67.8	66.8	54	2.7	117	30	1.5	4.3	13.2	1.3	25	137	630	630	328	328	648	158	210	645	16.5	7
10 A	2	18.5	225	249				54	2.8	116	30	1.5	4.3	13.8	1.3	25	138	630	630	328	328	648	140	214	645	16.0	11
11 A	2	17.5	225	249		67.3	66.5	53	2.7	110	28	1.5	4.4	13.8	1.3	25	138	630	630	328	328	648	140	214	645	17.0	4
12 H	2	18.0	225	252				54	2.8	114	28	1.5	4.4	13.8	1.3	25	138	630	630	328	328	648	140	214	645	15.5	13
1 P	2	20.5	225	249		67.4		54	2.8	114	30	1.5	4.1	13.8	1.3	25	138	630	630	328	328	648	140	214	645	16.0	1
2 P	2	19.5	225	250				54	2.5	113	30	1.5	4.2	13.8	1.3	27	132	630	630	325	331	645	140	214	645	16.0	2
3 P	2	17.0	226	248	1600	68.4	67.4	56	1.00	85	30	1.1	4.0	13.8	1.1	21	132	630	630	306	306	620	116	200	630	16.5	7
4 P	2	17.0	225	249				56	1.00	86	31	.8	4.0	13.8	1.0	21	134	630	630	301	301	602	109	198	630	16.0	12
5 P	2	16.5	227	248		67.2		57	1.8	85	30	1.2	4.1	13.8	1.1	21	134	630	630	302	302	602	109	200	630	16.0	3
6 P	2	15.5	225	248				56	1.00	84	30	1.1	4.2	13.8	1.1	21	134	630	630	302	302	602	109	198	630	16.0	12
7 P	2	20	226	249		67.8		55	1.0	119	31	1.6	4.1	13.8	1.1	21	136	630	630	315	315	642	144	211	640	16.0	4
8 P	2	18.5	226	250				54	1.0	120	30	1.2	4.1	13.8	1.1	21	136	630	630	316	316	642	143	211	640	16.0	10
9 P	2	20	227	250		67.8	69.0	52	1.8	117	31	1.4	4.2	13.8	1.1	21	134	630	630	322	322	645	143	211	640	17.0	7
10 P	2	21.5	225	249		66.5		49	2.2	121	31	1.6	4.1	13.8	1.1	21	132	630	630	326	329	642	140	210	640	17.0	1
11 P	2	20	227	249	1200			49	1.0	121	31	1.5	4.1	13.8	1.1	21	132	630	630	326	326	642	140	210	640	15.5	3
12 H	2	18	225	249		68.2	67.2	49	1.0	120	30	1.6	4.1	13.8	1.1	21	132	630	630	330	330	642	140	210	640	15.5	3
1 A	2	18	226	251				44	1.52	118	31	1.4	4.2	13.8	1.1	21	134	630	630	327	327	642	140	210	640	16.0	9
2 A	2	18	225	251		68.7		43	1.2	119	31	1.4	4.2	13.8	1.1	21	134	630	630	327	327	642	140	210	640	17.5	4
3 A	2	18	225	251				50	1.8	117	31	1.2	4.2	13.8	1.1	21	134	630	630	326	326	642	140	210	640	16.0	8
4 A	2	17	227	251		68.8	67.8	47	1.6	120	29	1.6	4.6	13.8	1.1	21	130	630	630	331	331	649	140	210	640	16.0	12
5 A	2	18	227	251				49	1.0	119	29	1.6	4.6	13.8	1.1	21	130	630	630	334	337	648	140	210	640	15.0	10
6 A	2	19	227	251				44	1.0	119	29	1.4	4.4	13.8	1.1	21	130	630	630	334	337	648	140	210	640	15.5	1

INTEGRATOR READINGS

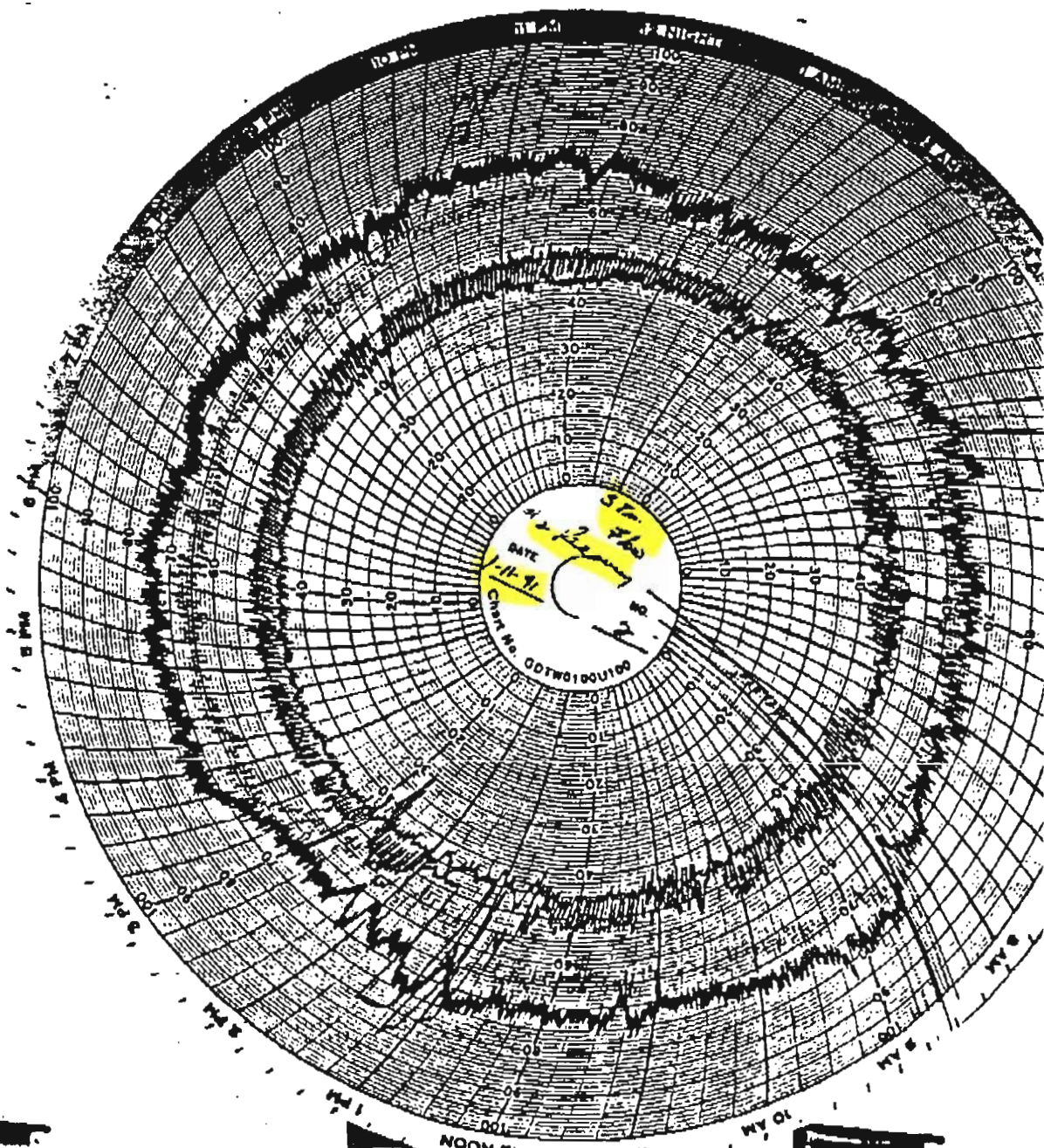
TIME	STEAM	LIQUOR
6 AM		
2 PM		
10 PM		
6 AM		

SHIFT OPERATOR:
 1. *[Signature]*
 2. *[Signature]*
 3. *[Signature]*

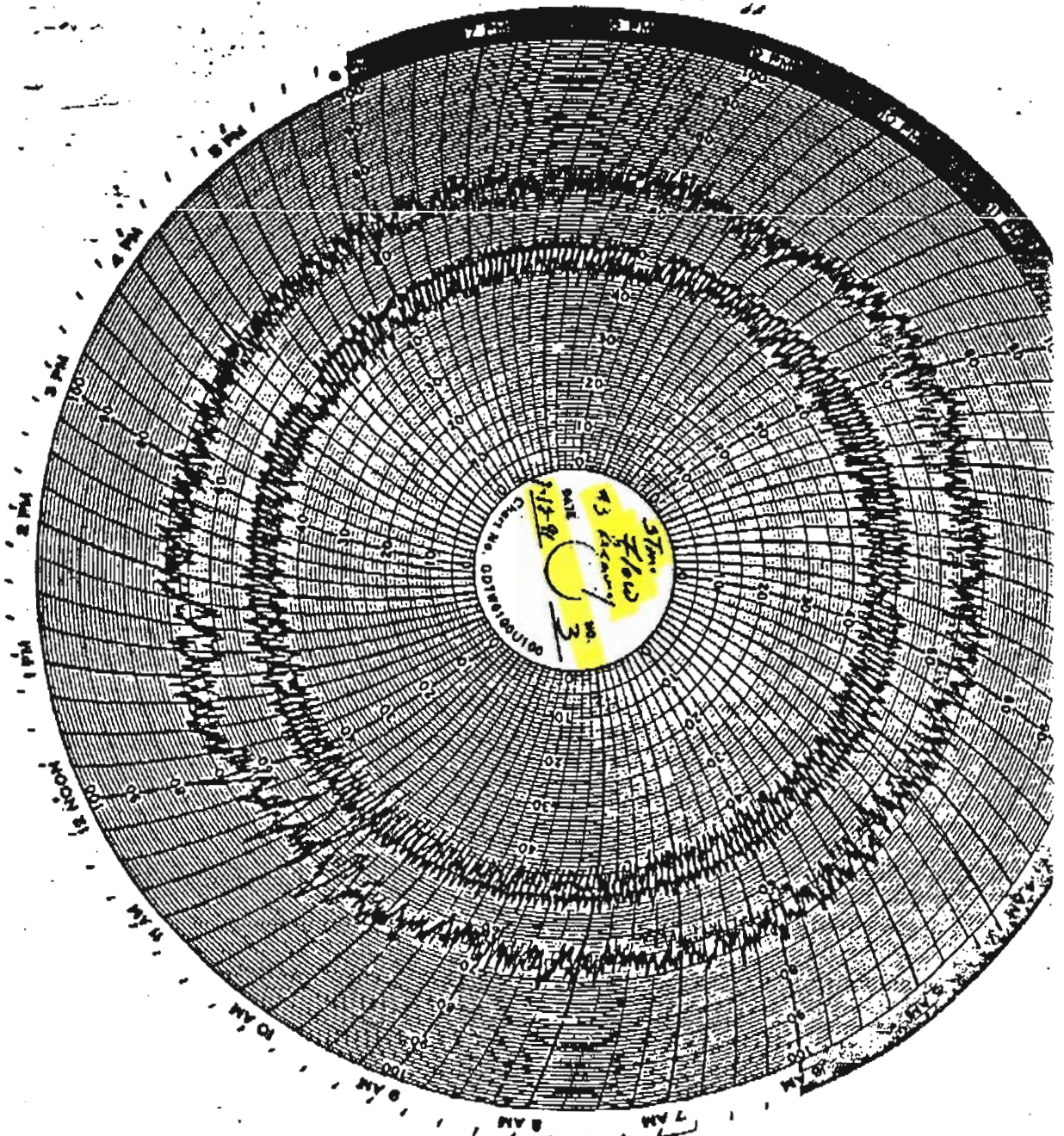
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#1 Lime Kiln Report

DATE 2/20/92 7 1/2

3/4 EVANS-Flowers 1/4 Hall-Dobson

TR5	TR5 /02	02	Mud Flow	Mud Dens	SCRB Flow	SCRB D/P	Oil Flow	Cold END	Hot END	Exit Gas	N.C Cases	Mud Sta	oil Temp	Stm Oil	oil Totalizer	C.S	oil	Gas	
1	.7	.6	7.0	70	33%	1100	16.5	3.2	790	1700	158	out	10.5	248	92	705			
2	.9	.7	7.8	70	33%	1100	16.5	3.2	820	1700	158	✓	10.0	262	92	908			
3	.9	.7	7.5	75	34%	1100	16.0	3.1	800	1600	160	✓	10.0	262	120	1074			
4	1.0	.8	7.8	75	34%	1160	16.0	3.0	790	1600	160	✓	10.5	262	130	1242			
5	.4	.3	7.5	75	34%	1160	18.0	3.1	720	1600	160	✓	11.0	262	120	1444			
6	12.1	14.1	11.5	75	34%	1160	18.0	3.3	740	1800	167	✓	11.0	262	118	1660			
7	L1	3.2	15.6	75	34%	1160	20.0	3.3	680	1400	167	✓	12.0	262	200	1763			
8	L3	18.8	20.2	6.0	34%	1160	24.0	out	660	1200	155	✓	12.0	274	-	1884			
9	1.1	2.4	15.9	7															
0	1.3	1.2	9.1	70	33%	1260	17.5	3.0	880	1800	156	✓	12.5	280	150	2029			
1	0.0	0.0	0.0	75	34%	1250	18.0	3.0	820	1700	160	out	13.0	244	170	2199			
2N	2.0	1.4	8.7	75	34%	1460	19.0	3.2	750	1650	152	11.7	13.0	248	174	2304			
1	9.9	6.9	5.2	60	34%	1420	19.0	3.3	720	2000	160	11.1	12.0	248	174	2416	3.4	11.4	46%
2	2.0	1.4	5.9	60	34%	1420	18.5	3.3	710	2000	164	11.1	11.0	250	174	2773			
3	1.9	1.4	6.2	60	34%	1400	18.2	3.3	740	2100	164	11.1	10.0	242	260	2969			
4	2.0	1.5	6.3	60	34%	1400	18.5	3.1	760	1900	165	11.1	9.0	240	190	3148			
5	1.8	1.3	5.8	60	34%	1400	19.0	3.1	700	1850	162	11.1	7.5	241	190	3320			
6	1.1	.8	6.5	H2O	-	1400	22.0	3.1	580	1700	170	11.1	7.0	244	160	3552			
7	.7	28.0	20.6					DOWN					7.0			3697			
8	.7	41.3	21.1										7.0			3697			
9	.7	-51.0	21.1										7.0			"			
0	.7	77.7	21.0										7.0			"			
1	0.0	0.0	0.0										7.0			3657			
2	1.4	74.9	20.9										7.0			"			

N/W put a Nipple on #1 shaft the rapper
 Kilo Down @ 8:00 PM ~~gun plugged~~ pull gun check tip
 Replace gun Kilo up @ 9:10 PM
 load off #1 Kiln at 5:30 PM
 Oil Fire out at 7:00 PM

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#2 Lime Kiln Report

DATE 2/20/92 7/3

3/11 EVANS-Flowers 1/7 Hall-Debra

TR5	TR5 /oz	oz	Mud Flow	Mud Dens	SCRB Flow	SCRB P/P	Oil Flow	Cold END	Hot END	Exit GAS	N.C Cases	Mud Stg	oil Temp	stm oil	oil Totalizer	C.S	oil	gas
1	2.2	2.4	10.7	125	27%	500	38.0	4.6	870	2100	153	IN	11.0	166	170	207460		
2	2.5	2.5	10.0	125	26%	500	38.0	4.7	390	2100	151	✓	11.0	166	170	207756		
3	2.8	2.7	9.6	125	27%	500	36.0	4.9	400	1900	150	✓	11.0	168	168	208024		
4	3.0	3.0	10.0	125	27%	520	38.0	4.9	410	2400	150	✓	12.0	168	168	208298		
5	.7	2.4	19.4	125	27%	500	38.0	4.9	410	2550	150	✓	12.0	169	169	208576		
6	0.0	0.0	0.0								✓	11.5				208632		
7	4.8	4.5	9.2	125	25%	520	32.0	4.8	400	2000	140	✓	12.0	168	164	208750		
8	2.8	2.9	10.2	125	26%	530	37.0	4.9	410	2250	150	✓	12.0	168	164	208999		
9	2.8	2.8	10.1	125	28%	530	35.0	4.9	400	2150	150	✓	12.0	168	164	209343		
0	2.9	2.9	10.0	125	27%	530	35.0	5.0	380	2460	150	✓	11 1/2	168	164	209764		
1	0.0	0.0	0.0	125	28%	530	38.0	5.0	400	2300	152	IN	11.0	164	164	210032		
2N	2.7	2.8	10.5	100	26%	520	39.0	4.9	380	2500	150	4?"	11.0	160	164	210286		
1	4.6	4.7	10.1	120	28%	520	38.5	4.9	410	2400	150	"	12.0	166	164	210515		
2	3.0	3.2	10.6	100	28%	520	38.5	4.9	390	2650	150	"	12.0	168	164	210781		
3	2.9	3.1	10.6	100	27%	520	38.5	4.8	400	2700	150	"	11.0	170	166	211191		
4	2.7	3.1	11.4	100	28%	520	38.5	4.5	400	2500	150	"	11.0	170	166	211430		
5	2.8	3.0	10.6	120	31%	520	36.5	4.6	530	2250	145	"	10.0	172	162	211690		
6	2.7	3.1	11.6	135	33%	520	35.5	4.1	540	2600	146	"	12.0	160	160	212059		
7	2.8	3.4	12.0	120	32%	520	37.0	4.1	475	2450	150	"	14.0	166	160	212317		
8	2.8	3.4	12.0	125	31%	520	37.0	4.0	480	2350	145	"	13.5	166	160	212492		
9	2.5	3.0	11.8	125	33%	520	37.5	4.1	450	2300	150	"	14.0	172	160	212701		
0	2.4	2.9	11.7	125	33%	520	37.0	4.1	490	2150	150	"	13.0	170	160	212949		
1	0.0	0.0	0.0	125	38%	520	37.0	4.1	470	2100	150	"		170	160	213259		
2N	2.0	1.8	8.6	135	33%	520	37.0	4.2	460	2000	160	"		173	160	213499		

#2
 MUD OFF FIRE OUT #2 KILN @ 5:06 AM CHAIR OFF
 Vented NCG @ 5:15 AM, OIL FLOW IN #2 KILN @ 6:05 AM N.C.G IN @ 6:25 AM
 MUD IN #2 KILN @ 6:40 AM
 Instrument man adjusted #2 Mud density control (now its really messed up!)

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#3 Lime Kiln Report

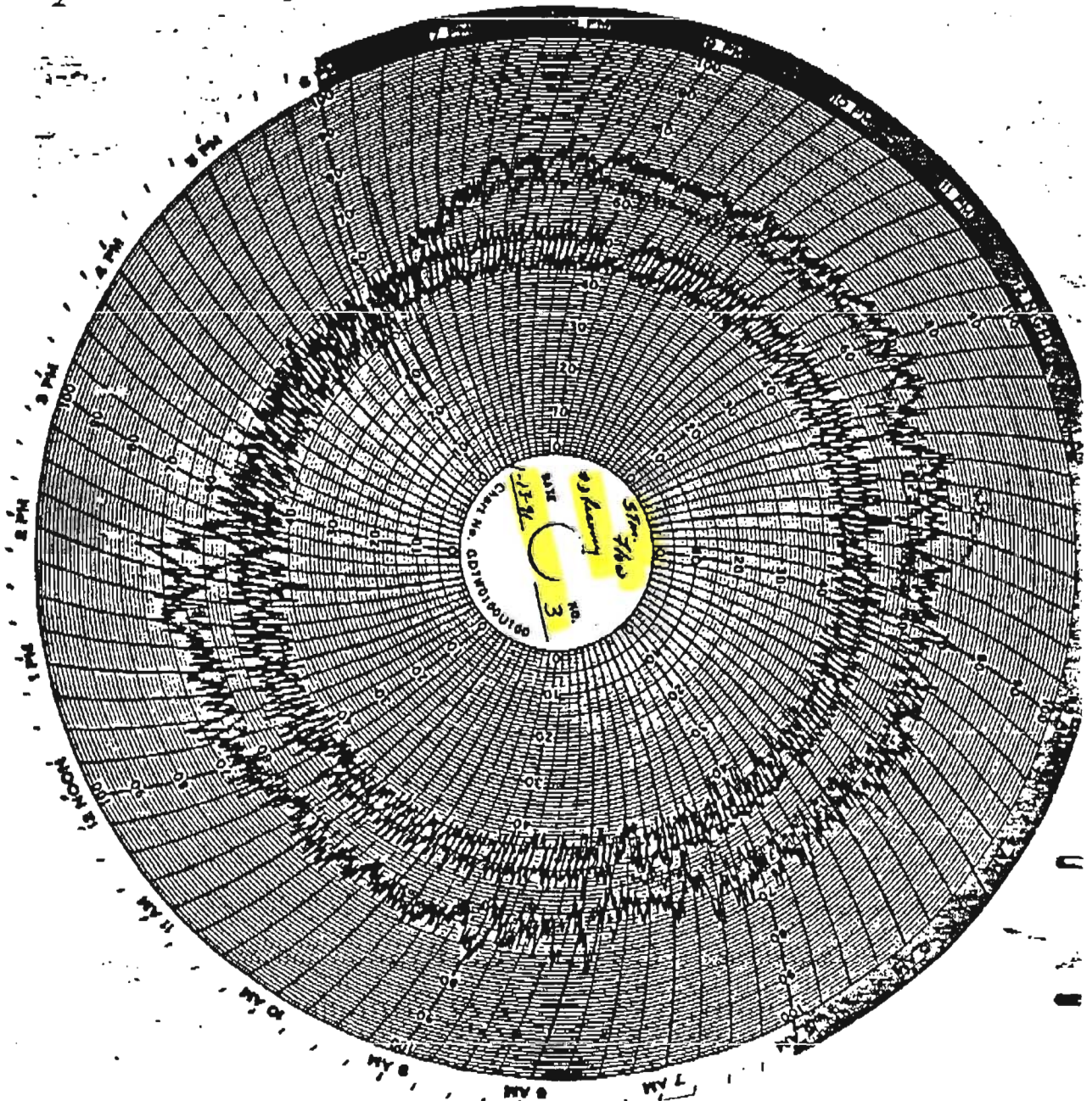
DATE 2/21/92 7/2

3/11 EVANS - Flowers 1/7 Hall - DeSue

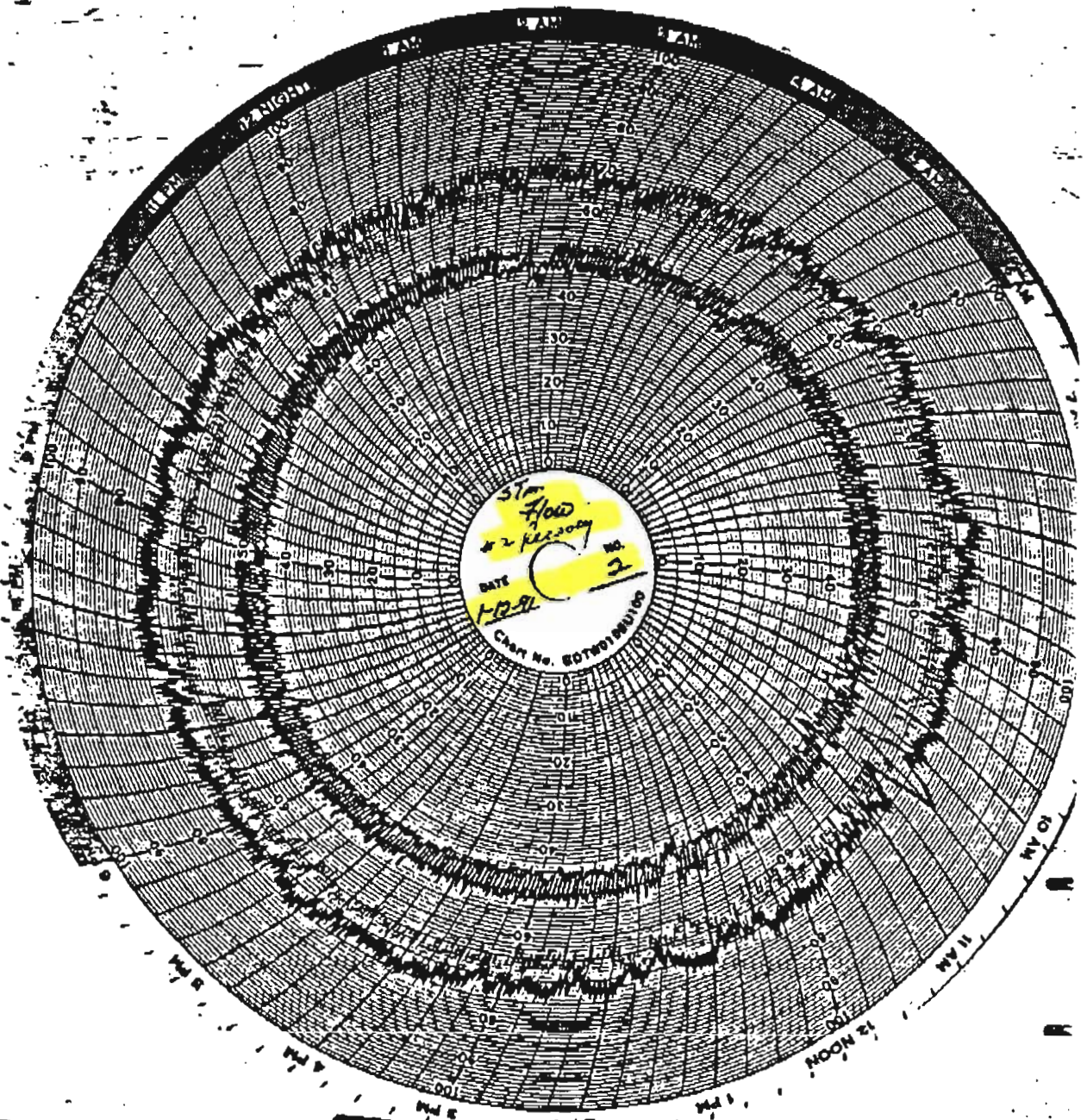
TR5	TR5 / 0.2	0.2	MUD Flow	MUD DENS	SCRBS Flow	SCRBS P/P	OIL Flow	Cold END	Hot END	Exit Gas	N.C Cases	Mud Sta.	oil Temp	stm	oil Totalizer	C.S.	oil	Ans
1	4.3	3.4	6.9	145	32%	580	27.0	4.9	555	1750	145	out	13.0	180	199777			
2	3.8	3.1	7.7	145	32%	580	26.0	5.0	570	1700	145	✓	19.0	180	200047			
3	4.5	3.7	7.9	145	32%	580	25.5	5.0	590	1650	145	✓	12.0	180	200356			
4	4.3	3.6	7.8	145	32%	580	25.5	5.0	520	1760	145	✓	10.5	184	200700			
5	4.6	3.6	7.1	145	32%	580	25.0	5.1	570	1520	145	✓	10.0	184	200926	3'0	9 1/2	35%
6	4.9	3.7	6.8	145	32%	580	25.0	5.1	575	1650	145	✓	9.0	184	201380			
7	8.3	6.5	7.0	155	35%	620	25.0	4.9	560	2000	145	✓	10.0	190	201579			
8	7.4	5.2	5.5	155	27%	580	26.0	5.2	580	1600	145	✓	10.0	190	201931			
9	4.7	4.0	8.0	155	29%	580	25.5	3.9	565	1800	145	✓	11.0	192	202248			
0	4.7	4.0	8.0	155	30%	580	26.0	4.0	565	1750	145	✓	10.0	192	202461			
1	0.0	0.0	0.0	155	31%	500	26.0	4.2	560	1800	145	OUT	12.0	192	202750			
2N	5.4	4.1	6.7	155	30%	500	26.0	4.2	540	1850	146	11.3	12.0	194	202965			
1	5.6	4.2	6.5	155	30%	500	26.0	4.4	520	1750	150	11.3	14.0	194	203211			
2	5.9	4.4	6.3	155	31%	480	26.0	4.4	520	1800	150	11	13.0	190	203375			
3	6.3	4.7	6.3	160	29%	480	26.5	4.4	520	1850	150	11	11.0	184	203717			
4	6.2	4.5	5.8	160	20%	480	26.5	4.4	510	1900	150	11	10.0	180	203958			
5	6.2	4.4	5.4	160	30%	480	27.0	4.6	500	1900	150	11	11.0	180	204410			
6	6.1	4.3	5.3	160	29%	480	27.0	4.6	500	1950	150	11	11.5	140	204675			
7	6.6	4.5	4.9	160	29%	480	27.0	4.7	500	1900	150	11	12.0	182	204930			
8	6.7	4.6	5.0	160	31%	480	27.0	4.7	500	2000	150	11	13.0	180	205060			
9	6.6	4.7	5.7	160	32%	480	27.0	4.7	510	2000	150	11	14.0	180	205350	2 1/2	11'	35%
0	5.4	4.4	7.3	160	31%	480	26.5	4.5	550	2050	150	11	12.5	182	205584			
1	0.0	0.0	0.0	160	31%	480	26.5	4.2	535	2060	150	11	12.0	184	205882			
2	5.6	4.0	5.5	160	29%	480	27.0	4.3	520	1940	150	11	12.0	184	206072			

Incline Kick-out 5:30 AM. Amp on shock Relay Reading high
 Instrument man reset the calibration on #3 kiln oil flow
 Logs #1 TR5 off @ 9:40 AM
 Replaced bustar water line on #3 lime crusher cooling jacket.

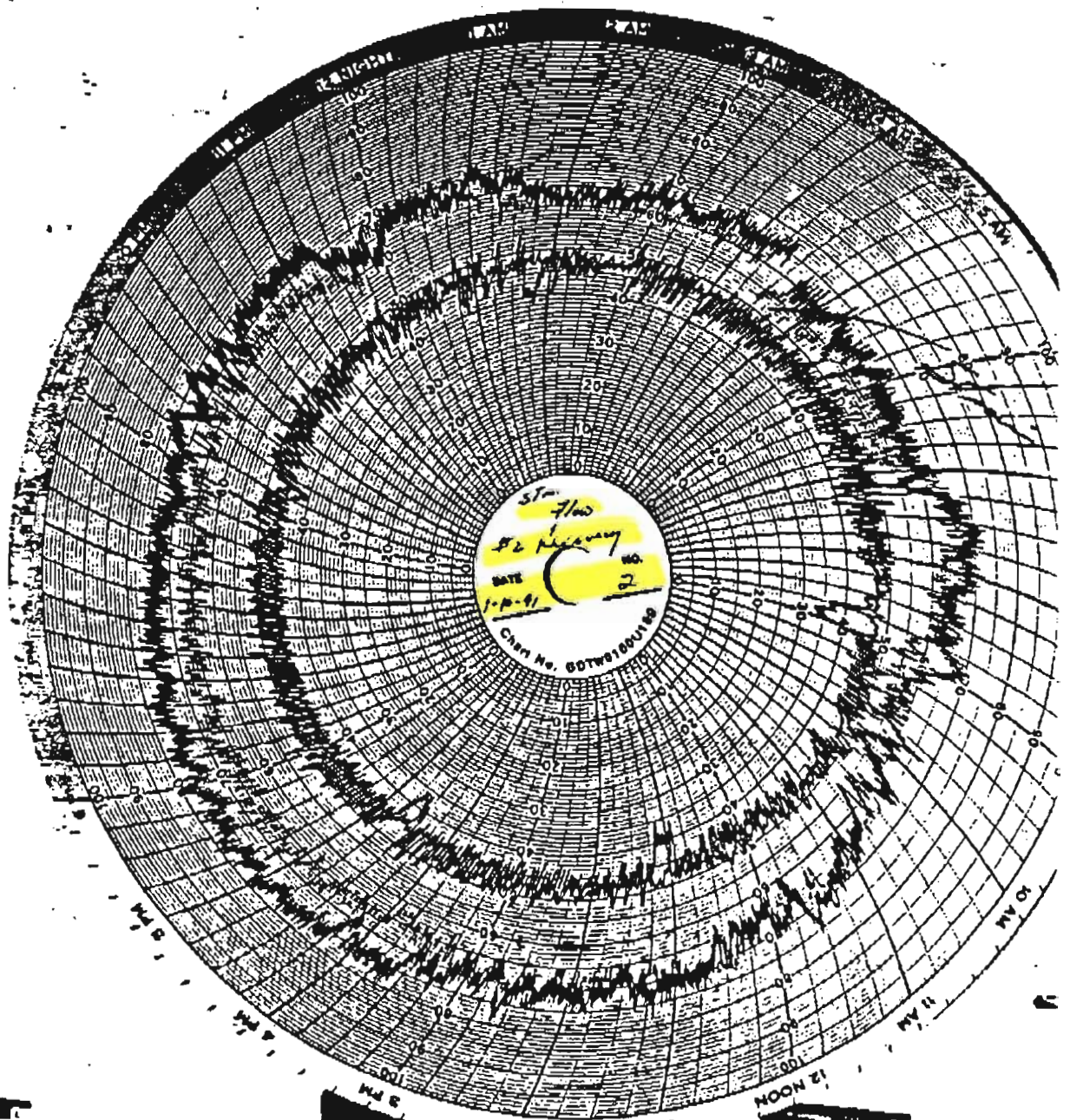
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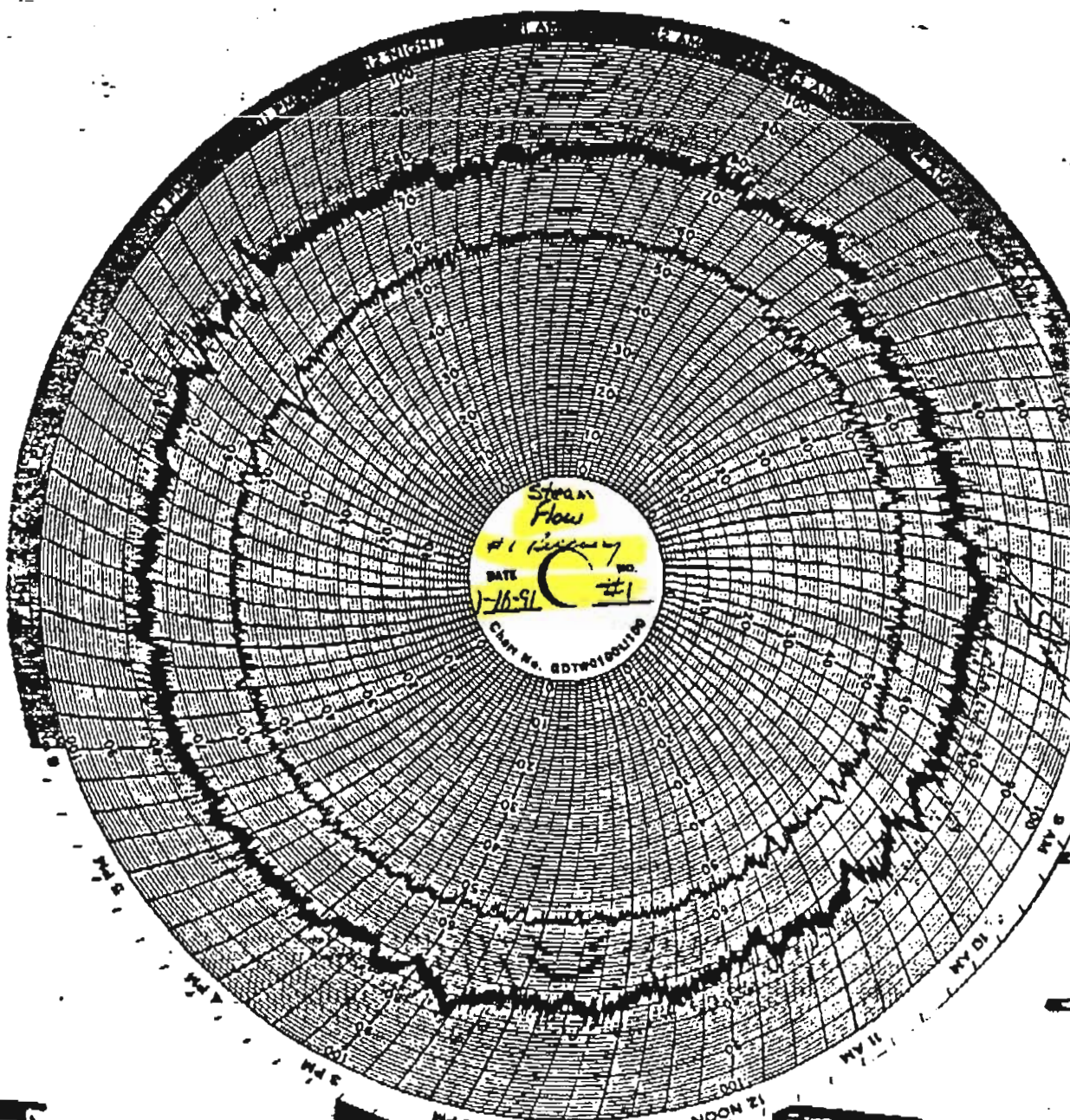


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Recoveries



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I RECEIVED 12/22 16:16 1992 AT 9043324189 PAGE 20 (PRINTED PAGE 20) 1
 DEC-22-1992 TUE 16:08 ID:SEMINOLE KRAFT TEL NO: (904)751-5822
 H570 P20

SEMINOLE KRAFT CORPORATION
 JACKSONVILLE, FLORIDA

RECOVERY DAILY REPORT

#3

PH 1
 DATE 1-12-1991

TIME	BLACK LIQUOR					CASCADE EVAPORATOR					FORCED DRAFT			BOILER DRAFT					STEAM			GREEN LIQUOR		Running	
	LIQUOR GR	NOZZLE PRESSURE	PRIMARY HEATER TEMP	SECONDARY HEATER TEMP	SULFUR	PERCENT SOLIDS	LEFT HAND APPS.	EXCESS OXYGEN	BLACK LIQUOR FLOW	FLOW	INCHES PRIMARY	INCHES SECONDARY	FURNACE	AVG. T.R.S.	PRECIP. TEMP	PRECIP. TEMP	CASCADE TEMP	SULFIDITY	FLOW	TEMP	PRESS.	TEST	DEGREES BAUMÉ		
7A	21	225	250	1600	68	57	1.1	113	28	1.4	4.4	240	47	22	140	270	285	310	317	685	40	22	240	60	10
8A	21	225	250	1600	68	56	1.1	116	25	1.4	4.6	240	42	22	138	270	285	307	318	689	40	22	240	60	6
9A	21	225	250	1600	68	56	1.1	116	25	1.4	4.6	240	42	22	138	270	285	307	318	689	40	22	240	60	6
10A	21	226	250	1600	68	57	1.1	117	27	1.4	4.6	240	42	22	138	270	285	307	318	689	40	22	240	60	6
11A	21	224	250	1600	68	57	1.1	117	27	1.4	4.6	240	42	22	138	270	285	307	318	689	40	22	240	60	6
12M	21	225	251	1600	68	56	1.0	116	28	1.0	4.2	238	37	22	132	268	280	310	319	688	40	22	240	60	4
1P	21	224	251	1600	68	57	1.1	116	28	1.0	4.2	238	37	22	132	268	280	310	319	688	40	22	240	60	4
2P	21	224	251	1600	68	57	1.1	116	28	1.0	4.2	238	37	22	132	268	280	310	319	688	40	22	240	60	4
3P	21	224	251	1600	68	57	1.1	116	28	1.0	4.2	238	37	22	132	268	280	310	319	688	40	22	240	60	4
4P	21	224	251	1600	68	57	1.1	116	28	1.0	4.2	238	37	22	132	268	280	310	319	688	40	22	240	60	4
5P	21	224	251	1600	68	57	1.1	116	28	1.0	4.2	238	37	22	132	268	280	310	319	688	40	22	240	60	4
6P	21	223	250	1600	68	59	1.3	115	29	1.0	4.2	238	37	22	132	268	280	310	319	688	40	22	240	60	4
7P	21	223	250	1600	68	59	1.3	115	29	1.0	4.2	238	37	22	132	268	280	310	319	688	40	22	240	60	4
8P	21	223	250	1600	68	59	1.3	115	29	1.0	4.2	238	37	22	132	268	280	310	319	688	40	22	240	60	4
9P	21	223	250	1600	68	59	1.3	115	29	1.0	4.2	238	37	22	132	268	280	310	319	688	40	22	240	60	4
10P	21	224	250	1600	68	58	1.2	115	28	1.0	4.2	238	37	22	132	268	280	310	319	688	40	22	240	60	4
11P	21	224	250	1600	68	58	1.2	115	28	1.0	4.2	238	37	22	132	268	280	310	319	688	40	22	240	60	4
12M	21	224	251	1600	68	58	1.2	115	28	1.0	4.2	238	37	22	132	268	280	310	319	688	40	22	240	60	4
1A	21	224	250	1600	68	58	1.2	115	28	1.0	4.2	238	37	22	132	268	280	310	319	688	40	22	240	60	4
2A	21	224	250	1600	68	58	1.2	115	28	1.0	4.2	238	37	22	132	268	280	310	319	688	40	22	240	60	4
3A	21	224	250	1600	68	58	1.2	115	28	1.0	4.2	238	37	22	132	268	280	310	319	688	40	22	240	60	4
4A	21	224	250	1600	68	58	1.2	115	28	1.0	4.2	238	37	22	132	268	280	310	319	688	40	22	240	60	4
5A	21	224	250	1600	68	58	1.2	115	28	1.0	4.2	238	37	22	132	268	280	310	319	688	40	22	240	60	4
6A	21	225	250	1600	68	58	1.2	115	28	1.0	4.2	238	37	22	132	268	280	310	319	688	40	22	240	60	4

7-3 changed feed lig pump using west pump
 #1 IK in service 1:30 PM #3 IK in service 2:15 PM
 3-11 could not change green liq lines due to valve failure IN Castic

INTEGRATOR READINGS

TIME	STEAM	LIQUOR
6 AM		
2 PM		
10 PM		
6 AM		

SHIFT OPERATOR:

Best Available Copy

BENTON KRAFT CORPORATION
JACKSONVILLE, FLORIDA

RECOVERY DAILY REPORT

2

DATE 1-11-1991

TIME	BLACK LIQUOR					CASCADE EVAPORATOR					FORCED DRAFT			BOILER DRAFT					STEAM			GREEN LIQUOR	
	LIQUOR GPM	NOZZLE PRESSURE	PRIMARY HEATER TEMP	SECONDARY HEATER TEMP	SULFUR	PERCENT SOLIDS	INCHES H2O	LEFT HAND PUMPS	EXCESS OXYGEN	BLACK LIQUOR FLOW	FLOW	INCHES PRIMARY	INCHES SECONDARY	FURNACE	TEMP	TEMP	TEMP	SULFURITY	FLOW	TEMP	PRESS.	TEST	DECREES BAUM
7 A	2	12	221	253																			
8 A	2	12	221	253																			
9 A	2	12	222	253																			
10 A	2	12	222	253	1400																		
11 A	2	12	221	253	1600	60.5	67.4																
12 M	2	12	222	253																			
1 P	2	12	223	253																			
2 P	2	12	223	253																			
3 P	2	0/S	223	252	1800																		
4 P	2	0/S	222	251																			
5 P	2	0/S	221	251																			
6 P	2	0/S	222	251																			
7 P	2	0/S	222	251																			
8 P	2	0/S	222	251																			
9 P	2	0/S	222	251																			
10 P	2	0/S	222	251																			
11 P	2	0/S	223	251	1600																		
12 M	2	0/S	223	251																			
1 A	2	0/S	221	251																			
2 A	2	0/S	222	250																			
3 A	2	0/S	222	251																			
4 A	2	0/S	221	252																			
5 A	2	0/S	222	252																			
6 A	2	0/S	222	252																			

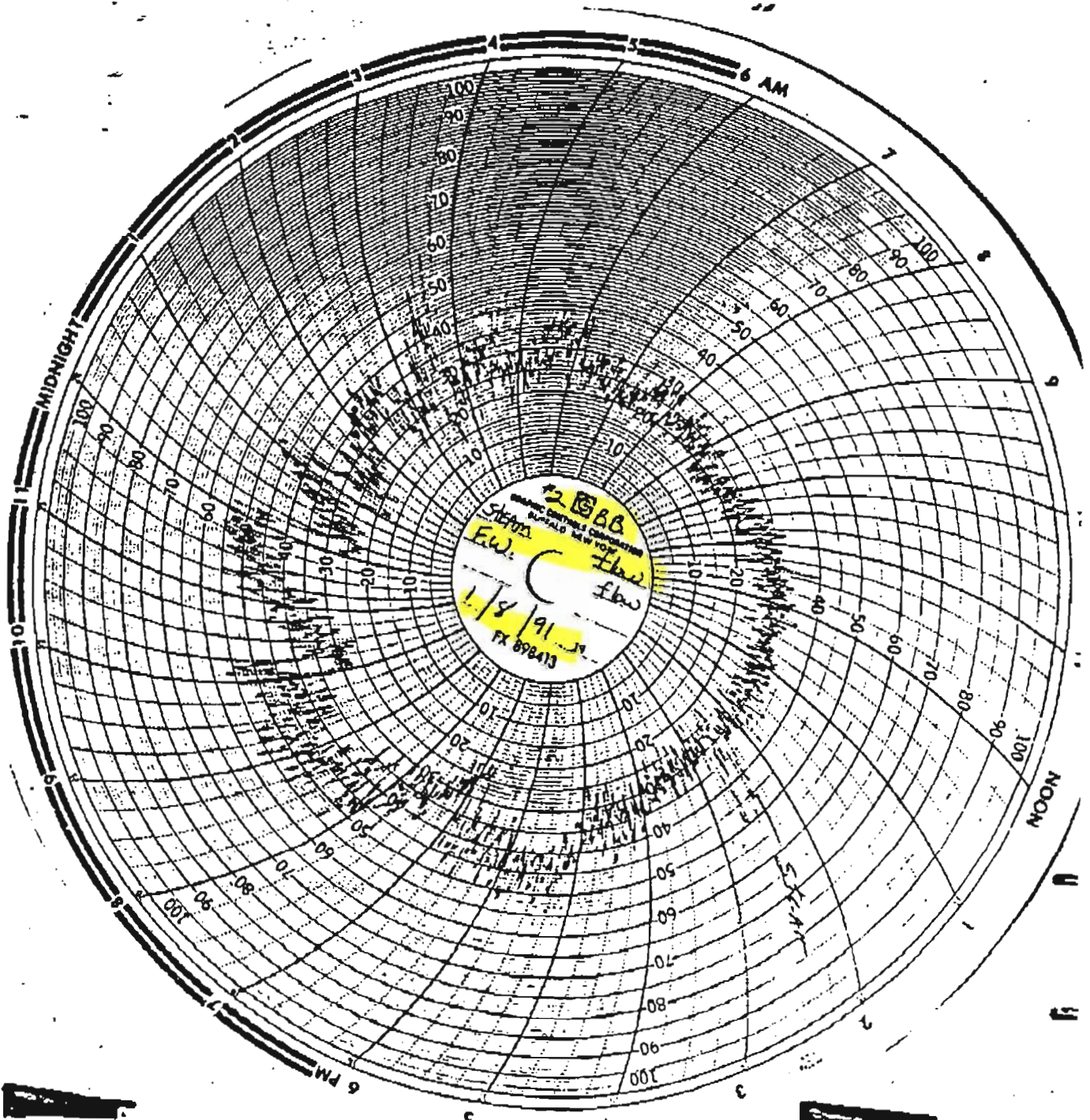
7/3 STARD STICK TEST @ 10:00am
3/11 Finked stick test @ 5:00pm

INTEGRATOR READINGS

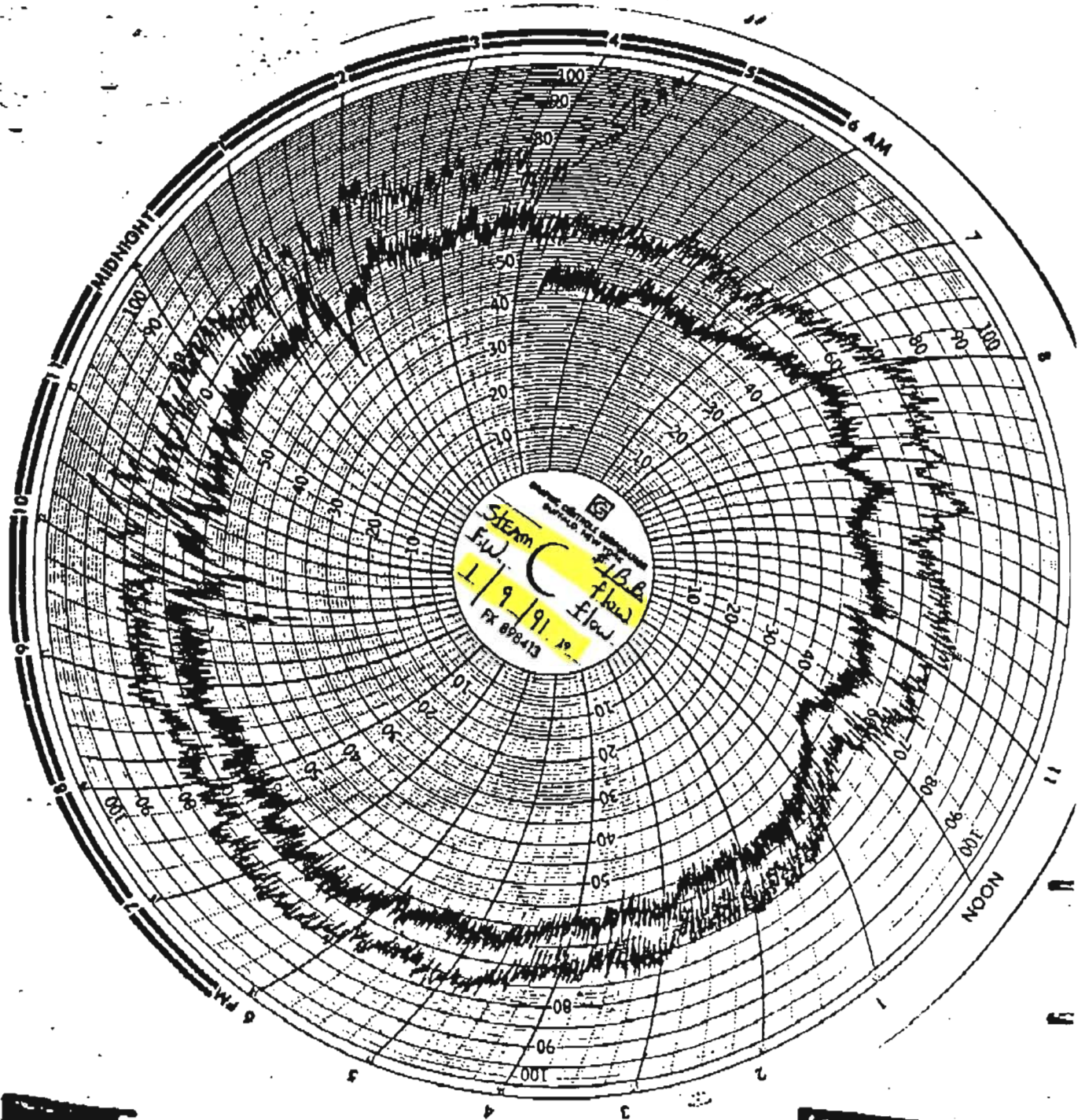
TIME	STEAM	LIQUOR
6 AM		
2 PM		
10 PM		
6 AM		

SHIFT OPERATOR:
E. Nelson

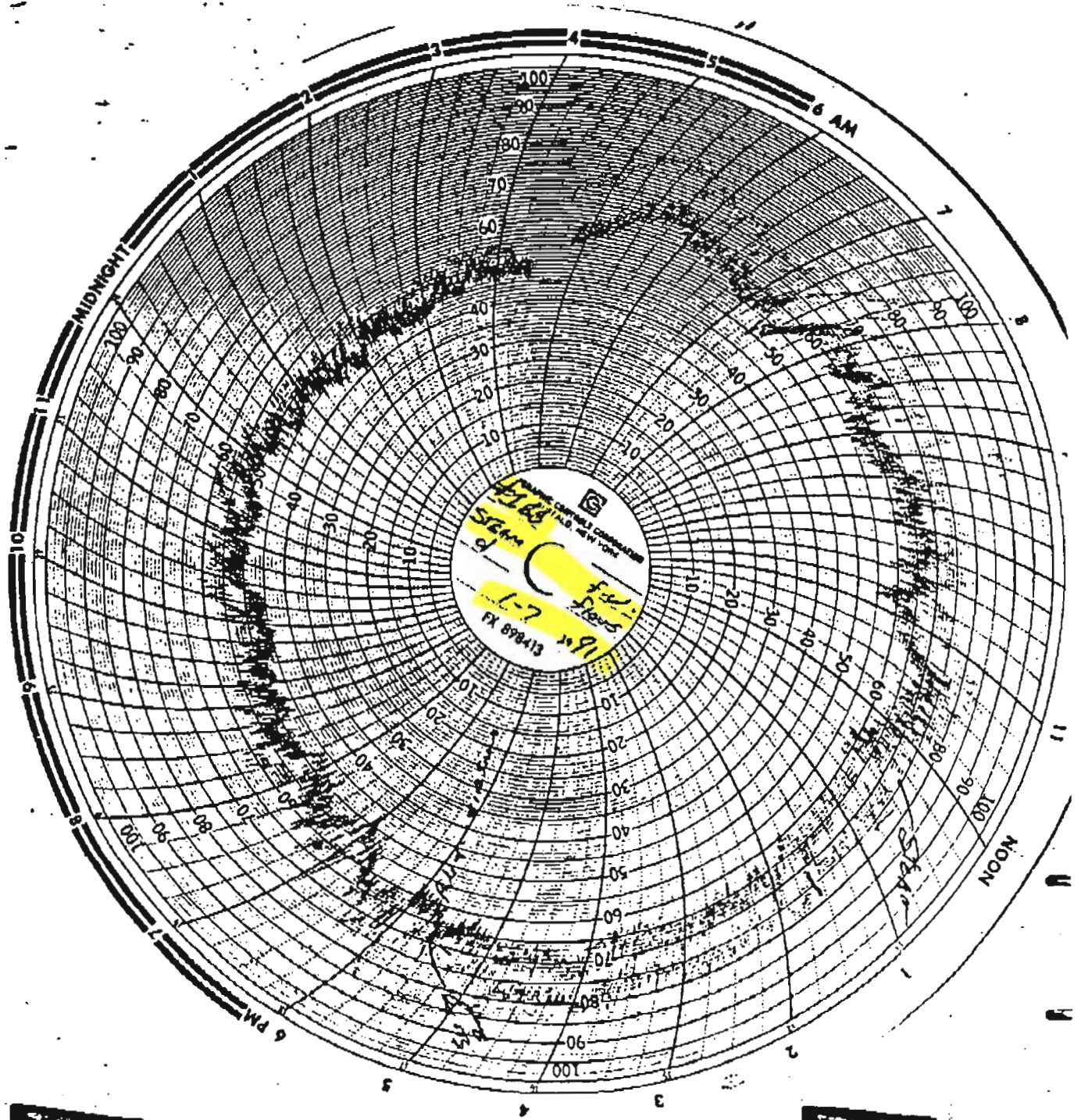
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OPERATOR: 1-3 Michael
 11-7 MC CARTER

Seminole Kraft Corporation
 Jacksonville, Fla.
 BOILER PERFORMANCE DAILY RECORD

Date Ending 1/9/91

No. 1 Bark Boiler	No. 2 Bark Boiler																											
	OPERTION	OPERTION	OPERTION	OPERTION	OPERTION	OPERTION	OPERTION	OPERTION	OPERTION	OPERTION																		
1	145	65	575	121	122	120	515	140	78	122	114	3	17	95	85	630	100	100	92	115	641	280	95	600	22	31	5	800
2	152	65	650	120	120	125	594	140	78	122	114	3	17	95	85	630	100	100	92	116	607	280	103	608	122	31	5	800
3	131	105	630	120	120	125	582	140	78	122	114	3	17	97	86	630	100	100	96	115	605	280	102	611	120	31	5	800
4	122	105	615	120	120	125	572	140	78	122	114	3	17	100	85	630	100	100	90	115	605	280	102	611	120	31	5	800
5	122	105	615	120	120	125	572	140	78	122	114	3	17	100	85	630	100	100	90	115	605	280	102	611	120	31	5	800
6	117	105	640	120	120	125	582	140	78	122	114	3	17	100	85	630	100	100	94	111	605	280	102	611	120	31	5	800
7	125	105	615	120	120	125	572	140	78	122	114	3	17	100	85	630	100	100	92	115	605	280	102	611	120	31	5	800
8	122	105	615	120	120	125	572	140	78	122	114	3	17	100	85	630	100	100	90	115	605	280	102	611	120	31	5	800
9	115	105	640	120	120	125	582	140	78	122	114	3	17	100	85	630	100	100	95	117	608	280	102	611	120	31	5	800
10	122	105	615	120	120	125	572	140	78	122	114	3	17	100	85	630	100	100	94	117	608	280	102	611	120	31	5	800
11	131	105	625	120	120	125	582	140	78	122	114	3	17	100	85	630	100	100	93	117	608	280	102	611	120	31	5	800
12	131	105	625	120	120	125	582	140	78	122	114	3	17	100	85	630	100	100	97	117	608	280	102	611	120	31	5	800
13	131	105	625	120	120	125	582	140	78	122	114	3	17	100	85	630	100	100	96	118	608	280	102	611	120	31	5	800
14	131	105	625	120	120	125	582	140	78	122	114	3	17	100	85	630	100	100	92	118	608	280	102	611	120	31	5	800
15	131	105	625	120	120	125	582	140	78	122	114	3	17	100	85	630	100	100	94	117	608	280	102	611	120	31	5	800
16	135	104	640	120	120	125	582	140	78	122	114	3	17	105	85	630	100	100	96	116	606	280	102	611	120	31	5	800
17	122	104	635	120	120	125	572	140	78	122	114	3	17	95	85	615	100	100	96	117	608	280	102	611	120	31	5	800
18	135	104	640	120	120	125	582	140	78	122	114	3	17	100	85	630	100	100	97	116	606	280	102	611	120	31	5	800
19	135	104	640	120	120	125	582	140	78	122	114	3	17	100	85	630	100	100	95	116	606	280	102	611	120	31	5	800
20	135	104	640	120	120	125	582	140	78	122	114	3	17	100	85	630	100	100	93	116	606	280	102	611	120	31	5	800
21	135	104	640	120	120	125	582	140	78	122	114	3	17	100	85	630	100	100	94	116	606	280	102	611	120	31	5	800

BARK FEED SCREW SPEED
 #01 _____
 #02 _____
 #03 _____
 #04 _____

BARK FLOW
 Time Down _____
 Time Up _____
 Reason for Downtime _____
 Operator's Initials _____

BARK FEED SCREW SPEED
 #01 _____
 #02 _____
 #03 _____
 #04 _____

COMMENTS

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#570 P26

PAGE 26 (PRINTED PAGE 26) J
TEL NO: (904) 751-5822

RECEIVED 12/22 16:22 1992 AT 9043324189
DEC-22-'92 TUE 16:14 ID: SEMINOLE KRAFT

OPERATOR: J.P. Gauthier
3-11 Rehabilitation
11-7 WRIGHT

Seminole Kraft Corporation
Jacksonville, Fla.
BOILER PERFORMANCE DAILY RECORD

Date Ending 1-7-91

PH 11

A.M.	No. 1 Bark Boiler												No. 2 Bark Boiler											
	Feed	Water	Oil	Gas	Coal	Oil	Gas	Coal	Oil	Gas	Coal	Oil	Water	Oil	Gas	Coal	Oil	Gas	Coal	Oil	Water	Oil	Gas	Coal
7	172	100	645	100	100	121	125	113	575	85	—	—	105	125	124	124	116	—	—	—	—	—	—	—
8	171	100	645	100	100	121	125	113	575	85	—	—	105	125	124	124	116	—	—	—	—	—	—	—
9	171	100	645	100	100	121	125	113	575	85	—	—	105	125	124	124	116	—	—	—	—	—	—	—
10	171	100	645	100	100	121	125	113	575	85	—	—	105	125	124	124	116	—	—	—	—	—	—	—
11	171	100	645	100	100	121	125	113	575	85	—	—	105	125	124	124	116	—	—	—	—	—	—	—
12	171	100	645	100	100	121	125	113	575	85	—	—	105	125	124	124	116	—	—	—	—	—	—	—
1	171	100	645	100	100	121	125	113	575	85	—	—	105	125	124	124	116	—	—	—	—	—	—	—
2	171	100	645	100	100	121	125	113	575	85	—	—	105	125	124	124	116	—	—	—	—	—	—	—
3	171	100	645	100	100	121	125	113	575	85	—	—	105	125	124	124	116	—	—	—	—	—	—	—
4	171	100	645	100	100	121	125	113	575	85	—	—	105	125	124	124	116	—	—	—	—	—	—	—
5	171	100	645	100	100	121	125	113	575	85	—	—	105	125	124	124	116	—	—	—	—	—	—	—
6	171	100	645	100	100	121	125	113	575	85	—	—	105	125	124	124	116	—	—	—	—	—	—	—
7	171	100	645	100	100	121	125	113	575	85	—	—	105	125	124	124	116	—	—	—	—	—	—	—
8	171	100	645	100	100	121	125	113	575	85	—	—	105	125	124	124	116	—	—	—	—	—	—	—
9	171	100	645	100	100	121	125	113	575	85	—	—	105	125	124	124	116	—	—	—	—	—	—	—
10	171	100	645	100	100	121	125	113	575	85	—	—	105	125	124	124	116	—	—	—	—	—	—	—
11	171	100	645	100	100	121	125	113	575	85	—	—	105	125	124	124	116	—	—	—	—	—	—	—
12	171	100	645	100	100	121	125	113	575	85	—	—	105	125	124	124	116	—	—	—	—	—	—	—
1 A.M.	171	100	645	100	100	121	125	113	575	85	—	—	105	125	124	124	116	—	—	—	—	—	—	—
2	171	100	645	100	100	121	125	113	575	85	—	—	105	125	124	124	116	—	—	—	—	—	—	—
3	171	100	645	100	100	121	125	113	575	85	—	—	105	125	124	124	116	—	—	—	—	—	—	—
4	171	100	645	100	100	121	125	113	575	85	—	—	105	125	124	124	116	—	—	—	—	—	—	—
5	171	100	645	100	100	121	125	113	575	85	—	—	105	125	124	124	116	—	—	—	—	—	—	—
6	171	100	645	100	100	121	125	113	575	85	—	—	105	125	124	124	116	—	—	—	—	—	—	—

BARK FEED SCREW SPEED
%1 _____
%2 _____
%3 _____
%4 _____

BARK PLDW
Time Down _____
Time Up _____
Reason for Dumping _____

BARK FEED SCREW SPEED
%1 _____
%2 _____
%3 _____
%4 _____

COMMENTS

ITEM 2

Table 3-3. Baseline Emissions for Recovery Boilers

Regulated Pollutant	Recovery Boiler No. 1			Recovery Boiler No. 2			Recovery Boiler No. 3		
	Operating Hours (hr/yr)	Emission Rate (lb/hr)	Annual Emissions (TPY)	Operating Hours (hr/yr)	Emission Rate (lb/hr)	Annual Emissions (TPY)	Operating Hours (hr/yr)	Emission Rate (lb/hr)	Annual Emissions (TPY)
Particulate (TSP)	8,161	--	107.75	8,113	--	156	8,121	--	129.7
Particulate (PM10)	8,161	--	80.8	8,113	--	117.0	8,121	--	97.2
Sulfur dioxide	8,161	0.9	3.7	8,113	0.7	2.8	8,121	0.2	0.8
Nitrogen oxides	8,161	28.8	117.5	8,113	31.8	129.0	8,121	34.3	139.3
Carbon monoxide	8,161	274.2	1118.9	8,113	288.2	1169.0	8,121	115.2	467.7
Volatile org. compds.	8,161	27.4	111.8	8,113	47.5	192.7	8,121	9.0	36.5
Lead	8,161	0	0	8,113	0.0	0	8,121	0	0
Mercury	8,161	0	0	8,113	0.0011	0.0045	8,121	0	0
Beryllium	8,161	0	0	8,113	0.0	0	8,121	0	0
Arsenic	8,161	0	0	8,113	0.0	0	8,121	0	0
Fluorides	8,161	--	--	8,113	--	--	8,121	--	--
Sulfuric acid mist	8,161	2.34	9.5	8,113	4.90	19.9	8,121	3.42	13.9
Total reduced sulfur	8,161	--	7.2	8,113	--	12.3	8,121	--	14.0
Asbestos	8,161	--	--	8,113	--	--	8,121	--	--
Vinyl Chloride	8,161	0	0	8,113	0.0	0	8,121	0	0

Notes: Operating hours represent average of 1990-1991 actual operating hours.

Emission rates are measured emission rates during actual stack test, unless otherwise noted below.

PM and TRS annual emissions are based on average 1990-1991 emissions as reported in Annual Operation Report For Air Emission Sources.

PM10 is based on extrapolation of AP-42 data for recovery boilers: 75% of PM is PM10.

Fluorides and asbestos were not measured; there are no emission factors; there are no known emissions.

Table 3-4. Baseline Emissions for Smelt Dissolving Tanks

Regulated Pollutant	Smelt Tank No. 1		Smelt Tank No. 2		Smelt Tank No. 3	
	Operating Hours (hr/yr)	Annual Emissions (TPY)	Operating Hours (hr/yr)	Annual Emissions (TPY)	Operating Hours (hr/yr)	Annual Emissions (TPY)
Particulate (TSP)	8,161	22.6	8,113	23.8	8,133	36.9
Particulate (PM10)	8,161	20.2	8,113	21.3	8,133	33.0
Sulfur dioxide	8,161	3.0	8,113	3.0	8,133	3.0
Nitrogen oxides	--	--	--	--	--	--
Carbon monoxide	--	--	--	--	--	--
Volatile org. compds.	--	--	--	--	--	--
Lead	--	--	--	--	--	--
Mercury	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--
Arsenic	--	--	--	--	--	--
Fluorides	--	--	--	--	--	--
Sulfuric acid mist	--	--	--	--	--	--
Total reduced sulfur	8,161	1.6	8,113	1.8	8,133	1.6
Asbestos	--	--	--	--	--	--
Vinyl Chloride	--	--	--	--	--	--

Notes: Operating hours represent average of 1990-1991 actual operating hours.

PM and TRS annual emissions are based on average 1990-1991 emissions as reported in Annual Operation Report For Air Emission Sources.

PM10 is based on AP-42 data for controlled PM from smelt tanks: 89.5% of PM is PM10.

SO₂ emissions based on AP-42 factor of 0.2 lb/ton ADUP, and 80% removal efficiency for spray chamber with demister pad for PM control. Total pulp production was as follows:

1990--459,683 tons ADUP
1991--395,040 tons ADUP
Average--427,362 tons ADUP

$$427,362 \text{ tons ADUP} \times 0.2 \text{ lb/ton} \times (1-0.80) + 2,000 \text{ lb/ton} = 8.55 \text{ TPY}$$

Divide SO₂ emissions between smelt tanks based on average operating hours.

Table 3-5. Baseline Emissions for Lime Kilns

Regulated Pollutant	Emission Factor	Lime Kiln No. 1		Lime Kiln No. 2		Lime Kiln No. 3	
		Activity Factor	Annual Emissions (TPY)	Activity Factor	Annual Emissions (TPY)	Activity Factor	Annual Emissions (TPY)
Particulate (TSP)	--	--	3.8	--	21.6	--	19.6
Particulate (PM10)	--	--	3.7	--	21.2	--	19.3
Sulfur dioxide	0.16/2.18/1.76 lb/hr ^a	1,170 hr/yr	0.1	7,732 hr/yr	8.4	7,598 hr/yr	6.7
Nitrogen oxides	15.3/10.7/15.9 lb/hr ^a	1,170 hr/yr	9.0	7,732 hr/yr	41.4	7,598 hr/yr	60.4
Carbon monoxide	0.1 lb/ton ADUP	1,170 hr/yr	1.5	7,732 hr/yr	10.2	7,598 hr/yr	10.0
Volatile org. compds.	0.13 lb/MM Btu	31,751 MM Btu/yr	2.1	293,599 MM Btu/yr	19.1	286,343 MM Btu/yr	18.6
Lead	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--	--
Arsenic	--	--	--	--	--	--	--
Fluorides	--	--	--	--	--	--	--
Sulfuric acid mist	--	--	--	--	--	--	--
Total reduced sulfur	--	--	0.2	--	1.7	--	1.4
Asbestos	--	--	--	--	--	--	--
Vinyl Chloride	--	--	--	--	--	--	--

^a Emission factors for Lime Kilns No. 1, No. 2, and No. 3, respectively, based on actual test data.

Notes: Operating hours represent two-year average, 1990-1991.1

PM and TRS annual emissions are based on average 1990-1991 emissions as reported in

Annual Operation Report For Air Emission Sources.

PM10 is based on AP-42 data for lime kilns controlled with venturi scrubber: 98.3% of PM is PM10.

SO₂ emissions based on average of stack tests conducted in 1989.

NO_x emissions based on stack tests conducted on each lime kiln in 1992.

CO emissions based on AP-42 factor of 0.1 lb/ton ADUP.

Total pulp production was as follows:

1990--459,683 tons ADUP

1991--395,040 tons ADUP

Average--427,362 tons ADUP

CO: 427,362 tons ADUP x 0.1 lb/ton / 2,000 lb/ton = 21.4 TPY

Divide emissions between lime kilns based on average operating hours in 1990-1991.

VOC emissions based on heat input and NCASI emission factors (see attached)

Heat input based on actual fuel oil fired in kilns in 1991, using 142,000 Btu/gal for fuel oil.

Kiln 1 Kiln 2 Kiln 3

Gallons-- 223,600 2,067,600 2,016,500

Table 3-6. PSD Source Applicability Analysis, SKC Package Boiler Project

Regulated Pollutant	Baseline Emissions (TPY)										Future Emissions (TPY)				Net Change (TPY)	Significant Emission Rate (TPY)	PSD Applies ?
	RB1	RB2	RB3	SDT1	SDT2	SDT3	LK1	LK2	LK3	Totals	PB1	PB2	PB3	Totals			
Particulate (TSP)	107.8	156.0	129.7	22.6	23.8	36.9	3.8	21.6	19.6	521.8	36.05	36.05	36.05	108.1	-413.7	25	No
Particulate (PM10)	80.8	117.0	97.2	20.2	21.3	33.0	3.7	21.2	19.3	413.7	18.00	18.00	18.00	54.0	-359.7	15	No
Sulfur dioxide	3.7	2.8	0.8	2.9	3.0	3.0	0.1	8.4	6.7	31.4	216.15	216.15	216.15	648.5	617.1	40	Yes
Nitrogen oxides	117.5	129.0	139.3	--	--	--	9.0	41.4	60.4	496.6	153.04	153.04	153.04	459.1	-37.5	40	No
Carbon monoxide	1,118.9	1,169.0	467.7	--	--	--	1.5	10.2	10.0	2,777.3	273.31	273.31	273.31	819.9	-1,957.4	100	No
Vol. org. compds.	111.8	192.7	36.5	--	--	--	2.1	19.1	18.6	381.9	1.05	1.05	1.05	3.2	-378.7	40	No
Lead	0	0	0	--	--	--	--	--	--	0.0	0.0064	0.0064	0.0064	0.019	0.019	0.6	No
Mercury	0	0.0045	0	--	--	--	--	--	--	0.0045	0.0024	0.0024	0.0024	0.0073	0.0028	0.1	No
Beryllium	0	0	0	--	--	--	--	--	--	0.0	0.0018	0.0018	0.0018	0.0054	0.0054	0.0004	Yes
Fluorides	--	--	--	--	--	--	--	--	--	0.0	0.023	0.023	0.023	0.069	0.069	3	No
Sulfuric acid mist	9.5	19.9	13.9	--	--	--	--	--	--	43.3	10.8	10.8	10.8	32.4	-10.9	7	No
Total reduced sulfur	7.2	12.3	14.0	1.6	1.8	1.6	0.2	1.7	1.4	41.8	--	--	--	0	-41.8	10	No
Asbestos	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	0.007	No
Vinyl Chloride	0	0	0	--	--	--	--	--	--	--	--	--	--	--	0	0	No

ITEM 3



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

APR 4 1990

4APT-AEB

RECEIVED

APR 09 1990

DER-BAQ^m

Mr. C. H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Seminole Kraft Corporation (PSD-FL-141)

Dear Mr. Fancy:

This is to acknowledge receipt of a package from your office transmitting a request from Seminole Kraft Corporation to modify their prevention of significant deterioration (PSD) permit, dated February 16, 1990. As discussed between Mr. Pradeep Raval of your staff and Mr. Gregg Worley of my staff on March 30, 1990, we have the following comments.

CREDITABLE EMISSIONS REDUCTIONS

The source has requested that conditions be placed in the PSD permit to allow them the flexibility to convert to 100% recycled fiber in lieu of constructing the new recovery boiler. In the event that the source makes the decision to convert to recycled fiber, the source would like to retain emissions credit for the units which would be shut down at the facility (i.e., the existing kraft pulp mill). The credit for shutting down any units may be retained but we must emphasize that such credit must be based on actual operating data from the two years previous to the shutdown, unless another time period is determined to be more representative of actual operating conditions. The information submitted by Seminole Kraft is based on the years 1983-84. Apparently the source used the operating hours of this time period along with presently permitted allowable emission rates to arrive at their creditable emission reductions. This is not acceptable. We would suggest that it would be prudent of FDER to require testing of the units prior to shutdown for the pollutants which are to be credited. In any case, the actual emission rates must be used rather than the permitted allowable rates unless the actual emissions exceed the allowable emissions.

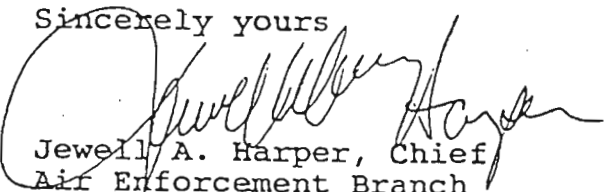
In a related matter, we do not think it is wise to include as a permit condition the language suggested by the source in provision 15 (d) which specifies what credits are available prior to the shutdown of the units. It appears that such a provision would lock FDER into accepting those numbers as creditable emissions no matter what the source operation was prior to shutdown. The fact that emissions resulting from federally enforceable shutdowns are creditable does not need to be established in a permit; the fact that such emissions are creditable is already established in federal and Florida regulations. In addition, the contemporaneous time period for which the emissions are creditable is established in regulations. Thus, it is redundant to state that "...the following emissions reductions will be available to Seminole Kraft for five (5) years from the date construction on this alternative is complete or November 12, 1992, whichever is earlier." By establishing a federally enforceable shutdown date at the completion of construction or November 12, 1992, whichever is earlier, it is understood that emissions credit is available for a period of five years from that point.

EFFECT ON THE AES CEDAR BAY PROJECT

The AES project which is currently under review for permitting plans to use the ambient impacts of shutting down several units at Seminole Kraft in their air quality analysis. How will the proposed permit amendment by Seminole Kraft affect the AES project?

Thank you for the opportunity to review and comment on this proposal by Seminole Kraft. If you have any questions or comments on this matter, please do not hesitate to contact Mr. Gregg Worley of my staff at 404/347-2864.

Sincerely yours


Jewell A. Harper, Chief
Air Enforcement Branch
Air, Pesticides and Toxics
Management Division

ITEM 4

1.0 INTRODUCTION

Seminole Kraft Corporation (SKC) currently operates a 100-percent recycled fiber paper mill facility in Jacksonville, Florida. For several years, SKC planned for the shutdown of its kraft pulping facilities and for the conversion to a 100-percent recycled fiber facility. This conversion was completed in September 1992 with the shutdown of all kraft pulping facilities which produced kraft paper from virgin wood pulp. Sources of air emissions associated with the kraft pulping operation included three recovery boilers and associated smelt dissolving tanks, three lime kilns, a lime slaker, and the pulp digesters and multiple-effect evaporators. Two bark boilers and three power boilers also operated in support of the kraft pulping facility by supplying steam for the process. These five boilers will continue to operate to support the recycle fiber facility until the Applied Energy Services (AES) Cedar Bay facility begins commercial operation.

The AES Cedar Bay cogeneration facility, licensed under the Florida Power Plant Site Certification Act (FPPSCA), will be located adjacent to the existing SKC facility. This coal-fired power plant, now under construction, will provide part of the steam required for the recycle fiber facility. Under the provisions of the site certification for the power plant, the two existing bark boilers and three power boilers at SKC are to be taken out of service and the permits surrendered when the AES Cedar Bay facility begins commercial operation. These shutdowns are to provide creditable emission reductions to AES Cedar Bay under the federal prevention of significant deterioration (PSD) new source review regulations. The shutdown of the SKC recovery boilers, smelt tanks, lime kilns and lime slaker provide SKC with creditable emission reductions under the PSD regulations (refer to documentation in Appendix C).

The recycle fiber facility will require additional steam beyond that provided by the AES Cedar Bay facility. Three new package boilers will be installed to provide this necessary steam. These package boilers will be fueled with low sulfur fuel oil as the primary fuel and natural gas as the backup fuel.

Based on the historic actual emissions from the recovery boilers, smelt tanks, and lime kilns recently shutdown at SKC, and the requested maximum emissions for the new package boilers, the proposed modification will constitute a major modification at a major stationary source under current federal and Florida PSD regulations. This report addresses the requirements of the PSD review procedures, pursuant to rules and regulations implementing the Clean Air Act (CAA) Amendments of 1977. The Florida Department of Environmental Regulation (FDER) has PSD

2.0 PROJECT DESCRIPTION

2.1 GENERAL

SKC currently operates a 100 percent recycled fiber paper mill located in Jacksonville, Florida (see Figure 2-1). SKC has recently (September 1992) shut down the kraft pulping operation and converted to a 100-percent recycle fiber paper mill facility. Sources of air emissions associated with the kraft pulping operation included three recovery boilers and associated smelt dissolving tanks, three lime kilns, a lime slaker, and the batch pulp digesters and multiple-effect evaporators. Two bark boilers and three power boilers were also operated to provide steam for the process. These five boilers will continue to operate to supply the recycle fiber paper mill facility with steam until the AES Cedar Bay facility begins commercial operation.

AES Cedar Bay holds a site certification and PSD permit for a coal-fired cogeneration facility to be located adjacent to the SKC site. This facility, which was licensed under FPPSCA and is now under construction, will provide part of the steam required for the SKC recycle fiber facility. Under the provisions of the site certification for the power plant, the existing two bark boilers and three power boilers at SKC are to be permanently shutdown, rendered inoperable and the permits surrendered to FDER once the AES Cedar Bay facility begins commercial operation. These shutdowns are to provide creditable emission reductions to AES Cedar Bay under the federal PSD new source review regulations.

The batch digesters, evaporators, recovery boilers, smelt tanks, lime kilns, and lime slaker at SKC have all been shut down. These shutdowns constitute creditable emission reductions for SKC under the PSD regulations. The creditable emission reductions are based on actual testing as prescribed in a letter from FDER dated June 6, 1990, and documented in SKC's letters dated September 28, 1992, and October 21, 1992 (refer to Appendix C). The creditable emission decreases are described further in Section 3.4, Source Applicability.

The recycle fiber facility will require additional steam beyond that provided by the AES Cedar Bay facility. In order to provide this steam, SKC is proposing to install three package boilers. These package boilers will be fueled with low sulfur fuel oil as the primary fuel and natural gas as the backup fuel. The No. 2 fuel oil will have a maximum sulfur content equivalent to 0.5 lb/MMBtu.



December 9, 1992

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

RE: Correction to PSD Class I Analysis for the Seminole Kraft Package Boiler PSD Application

Dear Mr. Fancy:

It was discovered that the UTM North coordinate for Container Corporation of America (i.e., 3394200) was incorrectly entered as 3374200 in the Class I modeling analysis. Only the Class I analysis was affected. The affected computer printouts were rerun in-house and all changes to the PSD application are provided.

The maximum predicted PSD increments do not change significantly. The maximum predicted annual increment is unchanged. The maximum predicted 24- and 3-hour maximum increments decline slightly from 4.06 and 19.38 $\mu\text{g}/\text{m}^3$, respectively, to 4.03 and 19.32 $\mu\text{g}/\text{m}^3$.

If you need further information or have any questions, please call me.

Sincerely yours,

Steven R. Marks
Senior Meteorologist

SRM/dmm

Enclosure

cc: Mike Riddle
Curt Barton
Craig Hurd
David Buff
File (2)

Q. Reynolds
E. Halladay
R. Robinson, BERSD
A. Kutyma, NE Dist
Q. Harper, EPA
B. Mitchell, NPS
B. Colson, EPD } 12-14-92

RECEIVED
DEC 10 1992
Division of Air
Resources Management

12169A1/7

KBN ENGINEERING AND APPLIED SCIENCES, INC.

1034 Northwest 57th Street Gainesville, Florida 32605 904/331-9000 FAX: 904/332-4189

Table 6-20. Maximum Predicted SO₂ Concentrations for the PSD Class I Screening Analysis
(Revised 12/09/92)

Averaging Time	Concentration (µg/m ³)	Receptor Location ^a		Period Ending (YYMMDDHH)
		UTM-E (m)	UTM-N (m)	
Annual	0.0	390000.	3384000.	83-----
	0.0	370000.	3383000.	84-----
	-0.1	392000.	3400000.	85-----
	0.0	392000.	3400000.	86-----
	0.0	370000.	3383000.	87-----
24-Hour ^b	3.9	390000.	3395000.	83041324
	3.9	392000.	3400000.	84112724
	4.0	392000.	3400000.	85041224
	3.8	392000.	3400000.	86043024
	3.6	392000.	3400000.	87072124
3-Hour ^b	15	391000.	3417000.	83111815
	19	391000.	3390000.	84082115
	17	390000.	3395000.	85022315
	17	390000.	3395000.	86100715
	15	391000.	3417000.	87122412

Note: YY=Year, MM=Month, DD=Day, HH=Hour

^a All receptor coordinates are reported in Universal Transverse Mercator (UTM) coordinates.

^b All short-term concentrations indicate highest, second-highest concentrations.

Table E-1. Source Contributions to Key Short-Term AAQS and PSD Maximum Impacts (Page 1 of 2)
(Revised 12/09/92)

AAQS: 24 Hour

Total Modeled Concentration: 421.95 $\mu\text{g}/\text{m}^3$ at (230°, 8500m), End Date: 83102124

SKC Package Boilers:	0.19 $\mu\text{g}/\text{m}^3$
AES Cedar Bay:	0.55
Container Corp.:	6.87
Gilman Paper:	0.69
ITT Rayonier:	4.92
Anheuser Busch:	51.27
SCM Glidco:	355.86
Georgia Pacific:	1.60

AAQS: 3-Hour

Total Modeled Concentration: 864.4 $\mu\text{g}/\text{m}^3$ at (220°, 5000m), End Date: 83030606

Jefferson Smurfit:	33.84
JEA-Kennedy:	460.44
US Gypsum:	368.52
Occidental Chemical:	1.60

PSD Class II: 24-Hour

Total Modeled Concentration: 133.5 $\mu\text{g}/\text{m}^3$ at (250°, 4500m), End Date: 83101024

SKC Package Boilers:	0.21 $\mu\text{g}/\text{m}^3$
SKC offsets:	-8.63
AES Cedar Bay:	0.17
Gilman Paper:	0.19
ITT Rayonier:	-0.10
Anheuser Busch:	141.66

PSD Class II: 3-Hour

Total Modeled Concentration: 447.48 $\mu\text{g}/\text{m}^3$ at (250°, 3900m), End Date: 86052415

Anheuser Busch:	447.48
-----------------	--------

Table E-1. Source Contributions to Key Short-Term AAQS and PSD Maximum Impacts (Page 2 of 2)
(Revised 12/09/92)

PSD Class I: 24-Hour

Total Modeled Concentration: 4.03 $\mu\text{g}/\text{m}^3$ at (392000, 3400000), End Date: 85041224

SKC Package Boilers:	0.22 $\mu\text{g}/\text{m}^3$
AES Cedar Bay:	1.17
SKC offsets:	2.67
Jefferson Smurfit:	-0.01
Gilman Paper:	0.17
JEASJ:	4.89
JEANS:	0.29
JEAKEN:	-0.10
Anheuser Busch	0.21
SCM Glidco:	-0.01
ES Metals:	-0.12
Maxwell House:	-0.01

PSD Class I: 3-Hour

Total Modeled Concentration: 19.32 $\mu\text{g}/\text{m}^3$ at (391000, 3390000), End Date: 84042115

SKC Package Boilers:	0.41 $\mu\text{g}/\text{m}^3$
AES Cedar Bay:	2.93
SKC offsets:	-4.56
JEASJ:	19.66
JEANS:	0.58
JEAKEN:	-0.04
Anheuser Busch:	0.34



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

December 4, 1992

Mr. R. H. Collom, Jr., Chief
Air Protection Branch
Environmental Protection Division
Georgia Department of Natural Resources
270 Washington Street, S.W.
Atlanta, GA 30334

Dear Mr. Collom:

RE: Seminole Kraft Corporation
New Package Boilers
Duval County, PSD-FL-198

Enclosed for your information is the above referenced PSD application package. We will send you a copy of the Bureau of Air Regulation's proposed final action on this project when it is available. If you have any questions or comments, please contact John Reynolds or Cleve Holladay at (904)488-1344 or write to me at the above address.

Sincerely,

for Patricia G. Adams

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

CHF/pa

Enclosures



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

December 2, 1992

Mr. Brian Mitchell, Acting Chief
Policy, Planning and Permit Review Branch
National Park Service-Air Quality Division
P. O. Box 25287
Denver, CO 80225

Dear Mr. Mitchell:

RE: Seminole Kraft Corporation
New Package Boilers
Duval County, PSD-FL-198

The Department has received the above referenced PSD application package. Please review this package and forward your comments to the Department's Bureau of Air Regulation by December 21, 1992. The Bureau's FAX number is (904)922-6979.

If you have any questions, please contact Bruce Mitchell or Cleve Holladay at (904)488-1344 or write to me at the above address.

Sincerely,

Patricia G. Adams

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

CHF/pa

Enclosures



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

December 2, 1992

Ms. Jewell A. Harper, Chief
Air Enforcement Branch
U.S. EPA, Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30308

Dear Ms. Harper:

RE: Seminole Kraft Corporation
New Package Boilers
Duval County, PSD-FL-198

The Department has received the above referenced PSD application package. Please review this package and forward your comments to the Department's Bureau of Air Regulation by December 21, 1992. The Bureau's FAX number is (904)922-6979.

If you have any questions, please contact Bruce Mitchell or Cleve Holladay at (904)488-1344 or write to me at the above address.

Sincerely,

Patricia G. Adams
for
C. H. Fancy, P.E.

Chief
Bureau of Air Regulation

CHF/pa

Enclosures



Seminole Kraft Corporation

Jacksonville Mill

9469 Eastport Road
P.O. Box 26998
Jacksonville, Florida 32218-0998

November 20, 1992

904 751-6400

Mr. Clair Fancy, P.E.
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone
Tallahassee, FL 32399-2400

1992 NOV 24 PM 12:48
RECEIVED
DER-MAIL ROOM

Re: PSD Permit Application for Three Package Boilers

Dear Mr. Fancy:

Enclosed are 5 original signed copies of the permit applications referenced above. These permits are being sought to construct three package boilers to supply steam to the Seminole Kraft paper mill.

If you have any questions concerning these applications, please contact Mr. Mike Riddle at (904) 751-6400 ext. 252.

Thank you for your consideration of the applications.

Sincerely,

L.A. Stanley
General Manager

ah
clair.doc

enclosures

CC: Mr. James Manning, P.E., RESD W/attachment
Scott Shirley, Oertel & Hoffman, W/attachment
Kent Fickett, U.S. Generating, W/attachment
Frank Stallwood, U.S. Generating, W/attachment
Curt Barton, W/O attachment
Mike Riddle, W/O attachment
David Buff, KBN, W/O attachment

J. Reynolds
C. Holladay
A. Kutyra, NE Dist.
J. Harper, EPA
B. Mitchell, NPS



invoice date/account	invoice reference	invoice amount	discount	net amount
11/20/92	Permit Review Fee	\$7,500.00		

detach before presenting check for payment

SEMINOLE KRAFT CORPORATION

024909

9469 EASTPORT ROAD JACKSONVILLE, FL 32218

66-798
531

date

11/23/92

amount

\$7,500.00

***7,500dollars and

***00cents

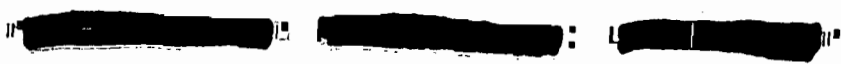
PAY

to the order of

Florida Department of
Environmental Regulation

NCNB NATIONAL BANK OF NORTH CAROLINA
ASHEVILLE, NORTH CAROLINA

Seminole Kraft Corporation



This original check was sent
to FEA on 11-25-92

Barbara
(mail room)

**PSD PERMIT APPLICATION
FOR
NEW PACKAGE BOILERS
SEMINOLE KRAFT CORPORATION
JACKSONVILLE, FLORIDA**

Prepared For:

**Seminole Kraft Corporation
9469 Eastport Road
Jacksonville, Florida 32218**

Prepared By:

**KBN Engineering and Applied Sciences, Inc.
1034 NW 57th Street
Gainesville, Florida 32605**

**November 1992
12169C1**

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LIST OF ACRONYMS AND ABBREVIATIONS
(Page 1 of 2)

AAQS	Ambient Air Quality Standards
AC	annualized cost
AES	Applied Energy Services
API	American Paper Institute
BACT	best available control technology
Be	beryllium
BLIS	BACT LAER Information System
Ca(OH ₂)	calcium hydroxide
CAA	Clean Air Act
CaCO ₃	calcium carbonate
CaSO ₃ ·½H ₂ O	calcium sulfite
CaSO ₄ ·2 H ₂ O	calcium sulfate
CE	Combustion Engineering
CFR	Code of Federal Regulations
CO	carbon monoxide
CRC	capital recovery cost
DOC	direct operating cost
EPRI	Electric Power Research Institute
ESP	electrostatic precipitator
FAC	Florida Administrative Code
FDER	Florida Department of Environmental Regulation
FGD	flue gas desulfurization
FGR	flue gas recirculation
FPPSCA	Florida Power Plant Site Certification Act
ft	feet
GEP	good engineering practice
hr/yr	hour per year
HSH	highest, second-highest
IOC	indirect operating cost
ISC	Industrial Source Complex
ISCLT	Industrial Source Complex Long-Term
ISCST	Industrial Source Complex Short-Term
km	kilometer
LAER	lowest achievable emission rate
lb/MMBtu	pound per million British thermal units
lb/ton	pound per ton
LEA	low excess air
LNB	low NO _x burner
m	meter
MMBtu/hr	million British thermal units per hour
MW-hr	megawatt-hour
N ₂	nitrogen
Na ₂ CO ₃	sodium carbonate
Na ₂ SO ₃	sodium sulfite
NaOH	sodium hydroxide

LIST OF ACRONYMS AND ABBREVIATIONS
(Page 2 of 2)

NO ₂	nitrogen dioxide
NO _x	oxides of nitrogen
NSPS	New Source Performance Standards
NWS	National Weather Service
OAQPS	Office of Air Quality Planning and Standards
OWA	Okefenokee Wilderness Area
PM10	particulate matter less than or equal to 10 micrometers
PMTSP	total suspended particulate matter
ppm	parts per million
PSD	prevention of significant deterioration
RFR	recycled fiber rejects
SCAQMD	South Coast Air Quality Management District
SCR	selective catalytic reduction
SIP	State Implementation Plan
SKC	Seminole Kraft Corporation
SNCR	selective noncatalytic reduction
SO ₂	sulfur dioxide
TCI	total capital investment
TPY	ton per year
TRS	total suspended sulfur
UNAMAP	Users Network for Applied Modeling of Air Pollution
VOC	volatile organic compound
WIWA	Wolf's Island Wilderness Area
μg/m ³	micrograms per cubic meter
μm	micrometer

1.0 INTRODUCTION

Seminole Kraft Corporation (SKC) currently operates a 100-percent recycled fiber paper mill facility in Jacksonville, Florida. For several years, SKC planned for the shutdown of its kraft pulping facilities and for the conversion to a 100-percent recycled fiber facility. This conversion was completed in September 1992 with the shutdown of all kraft pulping facilities which produced kraft paper from virgin wood pulp. Sources of air emissions associated with the kraft pulping operation included three recovery boilers and associated smelt dissolving tanks, three lime kilns, a lime slaker, and the pulp digesters and multiple-effect evaporators. Two bark boilers and three power boilers also operated in support of the kraft pulping facility by supplying steam for the process. These five boilers will continue to operate to support the recycle fiber facility until the Applied Energy Services (AES) Cedar Bay facility begins commercial operation.

The AES Cedar Bay cogeneration facility, licensed under the Florida Power Plant Site Certification Act (FPPSCA), will be located adjacent to the existing SKC facility. This coal-fired power plant, now under construction, will provide part of the steam required for the recycle fiber facility. Under the provisions of the site certification for the power plant, the two existing bark boilers and three power boilers at SKC are to be taken out of service and the permits surrendered when the AES Cedar Bay facility begins commercial operation. These shutdowns are to provide creditable emission reductions to AES Cedar Bay under the federal prevention of significant deterioration (PSD) new source review regulations. The shutdown of the SKC recovery boilers, smelt tanks, lime kilns and lime slaker provide SKC with creditable emission reductions under the PSD regulations (refer to documentation in Appendix C).

The recycle fiber facility will require additional steam beyond that provided by the AES Cedar Bay facility. Three new package boilers will be installed to provide this necessary steam. These package boilers will be fueled with natural gas and low sulfur fuel oil.

Based on the historic actual emissions from the recovery boilers, smelt tanks, and lime kilns recently shutdown at SKC, and the requested maximum emissions for the new package boilers, the proposed modification will constitute a major modification at a major stationary source under current federal and Florida PSD regulations. This report addresses the requirements of the PSD review procedures, pursuant to rules and regulations implementing the Clean Air Act (CAA) Amendments of 1977. The Florida Department of Environmental Regulation (FDER) has PSD

review and approval authority in Florida for this type of project. Based on the PSD source applicability analysis, PSD review is indicated for sulfur dioxide (SO₂) and beryllium (Be).

This application contains seven additional sections. A complete description of the project, including air emission rates and stack parameters, is presented in Section 2.0. The air quality requirements for the project and new source review applicability are discussed in Section 3.0.

Ambient monitoring requirements under PSD are addressed in Section 4.0. The best available control technology (BACT) analysis is presented in Section 5.0. The air quality impact (dispersion modeling) analysis is presented in Section 6.0, and impacts on soils, vegetation, and visibility are addressed in Section 7.0. Completed construction permit applications for the new package boilers are contained in Appendix B.

2.0 PROJECT DESCRIPTION

2.1 GENERAL

SKC currently operates a 100 percent recycled fiber paper mill located in Jacksonville, Florida (see Figure 2-1). SKC has recently (September 1992) shut down the kraft pulping operation and converted to a 100-percent recycle fiber paper mill facility. Sources of air emissions associated with the kraft pulping operation included three recovery boilers and associated smelt dissolving tanks, three lime kilns, a lime slaker, and the batch pulp digesters and multiple-effect evaporators. Two bark boilers and three power boilers were also operated to provide steam for the process. These five boilers will continue to operate to supply the recycle fiber paper mill facility with steam until the AES Cedar Bay facility begins commercial operation.

AES Cedar Bay holds a site certification and PSD permit for a coal-fired cogeneration facility to be located adjacent to the SKC site. This facility, which was licensed under FPPSCA and is now under construction, will provide part of the steam required for the SKC recycle fiber facility. Under the provisions of the site certification for the power plant, the existing two bark boilers and three power boilers at SKC are to be permanently shutdown, rendered inoperable and the permits surrendered to FDER once the AES Cedar Bay facility begins commercial operation. These shutdowns are to provide creditable emission reductions to AES Cedar Bay under the federal PSD new source review regulations.

The batch digesters, evaporators, recovery boilers, smelt tanks, lime kilns, and lime slaker at SKC have all been shut down. These shutdowns constitute creditable emission reductions for SKC under the PSD regulations. The creditable emission reductions are based on actual testing as prescribed in a letter from FDER dated June 6, 1990, and documented in SKC's letters dated September 28, 1992, and October 21, 1992 (refer to Appendix C). The creditable emission decreases are described further in Section 3.4, Source Applicability.

The recycle fiber facility will require additional steam beyond that provided by the AES Cedar Bay facility. In order to provide this steam, SKC is proposing to install three package boilers. These package boilers will be fueled with natural gas and low sulfur fuel oil. The No. 2 fuel oil will have a maximum sulfur content equivalent to 0.5 lb/MMBtu.



2-2

Figure 2-1 SITE LOCATION OF SEMINOLE KRAFT CORPORATION



Each of the three package boilers will be rated at 125,000 lb/hr steam at 650 psig and 750°F. Maximum heat input will be 174.7 MMBtu/hr when firing natural gas, and 164.5 MMBtu/hr when firing No. 2 fuel oil. Design parameters for each package boiler are presented in Table 2-1.

2.2 EMISSIONS OF REGULATED POLLUTANTS

The package boilers will be subject to the federal New Source Performance Standards (NSPS) for industrial boilers since the maximum heat input to each boiler will be greater than 100 MMBtu/hr. The NSPS are contained in the Code of Federal Regulations (CFR), Title 40, Part 60, Subpart Db. The NSPS applicable to the package boilers are presented in Table 2-2. The NSPS limit emissions of NO_x to 0.2 lb/MMBtu for both natural gas firing and distillate fuel oil firing in high heat release rate boilers. The NSPS defines a high heat release rate boiler as a boiler heat release rate of greater than 70,000 Btu/hr-ft³. SO₂ emissions are limited to 0.5 lb/MMBtu for sources which do not use an add-on SO₂ control device, such as a flue gas desulfurization system. There is no PM limit under NSPS for natural gas or distillate fuel oil firing.

The maximum estimated emissions of regulated pollutants from the package boilers are presented in Table 2-3. For No. 2 fuel oil firing, total suspended particulate matter [PM(TSP)] emissions for the package boilers are based upon the estimated maximum ash content of No. 2 distillate oil. Emissions of particulate matter with an aerodynamic particle size diameter of 10 micrometers (μm) or less (PM10) for oil firing are based on EPA Publication AP-42 (EPA, 1991b) factors for uncontrolled oil-fired boilers. The AP-42 data show that 50 percent of the PM(TSP) emissions are of PM10 size (refer to Appendix A).

The fuel oil burned in the package boilers will be a No. 2 fuel oil with a maximum sulfur content of 0.5 percent equivalent to 0.5 lb/MMBtu to meet the NSPS. The annual average fuel sulfur content will be 0.3 percent, equivalent to 0.3 lb SO₂/MMBtu.

Emissions of NO_x for fuel oil burning are based on a factor of 0.2 lb/MMBtu, which is equivalent to federal NSPS for new oil-fired boilers with a high heat release rate and firing distillate oil or natural gas. The design heat release rate of the boilers is 98,268 Btu/hr-ft³ for No. 2 fuel oil and 104,361 Btu/hr-ft³ for natural gas, which classifies the boilers as high heat release rate boilers.

Table 2-1. Design Parameters for New Package Boilers

Parameter	Units	No. 2 Fuel Oil (per boiler)	Natural Gas (per boiler)
Steam Flow	lb/hr	125,000	125,000
Steam Pressure	psi	650	650
Steam Temperature	°F	709	750
Heat Input	MMBtu/hr	164.5	174.7
Furnace Volume	ft ³	1,674	1,674
Heat Release Rate	Btu/hr-ft ³	98,268	104,361
Fuel Heating Value	Btu/gal	138,960	--
	Btu/lb	19,300 ^a	--
	Btu/scf	--	1,000
Fuel Flow	lb/hr	8,523	--
	gal/hr	1,184	
	scf/hr	--	174,700
Exhaust Gas:			
Temperature	°F	345	330
Moisture	%	10	10
Flow Rate	lb/hr	158,040	161,570
	acfm	53,366	53,541
	scfm	31,502	31,606
Common Stack ^b			
Diameter	ft	8.00	8.00
Velocity	ft/s	53.08	53.26
Height	ft	200	200

^a Density of No. 2 fuel oil is approximately 7.2 lb/gal.

^b All three boilers will exhaust into a common stack. Velocity shown is total all three boilers.

Table 2-2. NSPS for Natural Gas/Oil-Fired Steam-Generating Units With Heat Input Between 100×10^6 and 250×10^6 Btu/hr

Pollutant	Fuel	Annual Capacity Factor (%)	Standard
SO ₂	Fuel oil	31-100 on oil	0.80 lb/10 ⁶ Btu; 90% reduction ^a
	Fuel oil	0-30 on oil	0.50 lb/10 ⁶ Btu
	Natural gas	0-100 on gas	No SO ₂ limit
PM	Fuel oil	0-100	a. 0.10 lb/10 ⁶ Btu if a conventional or emerging SO ₂ control technology is used b. no PM limit if an SO ₂ control technology is not used
	Natural gas	0-100	No PM limit
Opacity	Fuel oil or natural gas	0-100	20% opacity, except 27% for one 6-minute period per hour
NO _x	Distillate oil or natural gas	11-100 on oil or gas	Distillate oil or natural gas a. Low heat release rate-- 0.10 lb/10 ⁶ Btu b. High heat release rate-- 0.20 lb/10 ⁶ Btu
	Distillate oil	0-10 on oil	No NO _x standard

Note: lb/10⁶ Btu = pounds per million British thermal units.

NO_x = nitrogen oxides.

SO₂ = sulfur dioxide.

^a Percentage reduction requirement does not apply if burning very-low-sulfur oil (<0.50 lb/10⁶ Btu).

Source: 40 CFR 60, Subpart Db.

Table 2-3. Future Maximum Emissions of Regulated Pollutants for Each Package Boiler

Regulated Pollutant	Emission Factor	Ref	No. 2 Fuel Oil (0.5XS)			Natural Gas			Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions per Boiler (TPY)	Total Annual Emissions Three Boilers (TPY)
			Activity Factor	Hourly Emissions (lb/hr)	Emission Factor	Ref.	Activity Factor	Hourly Emissions (lb/hr)			
Particulate (TSP)	0.05 lb/MMBtu	8	164.5 MMBtu/hr	8.23	5 lb/MM scf	1	0.1747 MM scf/hr	0.87	8.23	36.05	108.1
Particulate (PM10)	50 % of PM	1	--	4.11	5 lb/MM scf	1	0.1747 MM scf/hr	0.87	4.11	18.00	54.0
Sulfur dioxide											
Maximum	0.5 lb/MM Btu	2	164.5 MM Btu/hr	82.25	0.6 lb/MM scf	1	0.1747 MM scf/hr	0.10	82.25	--	--
Annual Average	0.3 lb/MM Btu	2	164.5 MM Btu/hr	49.35				--	--	216.15	648.5
Nitrogen oxides	0.2 lb/MM Btu	3	164.5 MM Btu/hr	32.90	0.2 lb/MM Btu	3	174.7 MM Btu/hr	34.94	34.94	153.04	459.1
Carbon monoxide	400 ppm	4	53,366 acfm	61.04	400 ppm	4	53,541 acfm	62.40	62.40	273.31	819.9
Volatile org. compds.	0.2 lb/1000 gal	1	1,192 gal/hr	0.24	1.4 lb/MM scf	1	0.1747 MM scf/hr	0.24	0.24	1.05	3.2
Lead	8.9 lb/10 ¹² Btu	5	164.5 MM Btu/hr	0.00146	--	--	--	--	0.00146	0.00641	0.019
Mercury	3.4 lb/10 ¹² Btu	6	164.5 MM Btu/hr	0.000559	0.014 lb/10 ¹²	6	174.7 MM Btu/hr	2.4E-06	0.000559	0.00245	0.0073
Beryllium	2.5 lb/10 ¹² Btu	5	164.5 MM Btu/hr	0.000411	--	--	--	--	0.000411	0.00180	0.0054
Fluorides	32 lb/10 ¹² Btu	7	164.5 MM Btu/hr	0.00526	--	--	--	--	0.00526	0.0231	0.069
Sulfuric acid mist	2.07 lb/1000 gal	1	1,192 gal/hr	2.47	--	--	--	--	2.47	10.81	32.4
Total reduced sulfur	--	--	--	--	--	--	--	--	--	--	--
Asbestos	--	--	--	--	--	--	--	--	--	--	--
Vinyl Chloride	--	--	--	--	--	--	--	--	--	--	--

References:

1. Compilation of Air Pollutant Emission Factors, AP-42 (EPA, 1991).
2. Based on sulfur content of No. 2 distillate fuel oil and NSPS.
3. Equivalent to NSPS for Industrial Boilers, 40 CFR 60, Subpart Db.
4. Based on boiler manufacturer's information.
5. Toxic Air Pollutant Emission Factors- A Compilation For Selected Air Toxic Compounds and Sources, Second Edition. EPA-450/2-90-011 (EPA, 1990a).
6. Based on Mercury Emissions to the Atmosphere in Florida (KBN, 1992).
7. Emissions Assessment of Conventional Stationary Combustion Systems: Volume IV: Industrial Combustion Sources. EPA-600/7-81-003 (EPA, 1981).
8. Based on estimated maximum ash content of No. 2 fuel oil of 0.1 percent by weight.

Emissions of VOC due to fuel oil firing are based on the AP-42 factors for distillate-oil-fired boilers (see Appendix A). Carbon monoxide (CO) emissions for No. 2 distillate oil firing are based upon a maximum CO concentration of 400 ppm in the exhaust gases, based upon the boiler manufacturer's estimate. The equivalent CO emission rate is 0.371 lb/MMBtu.

Emissions due to natural gas-firing are based on AP-42 factors, except in the case of NO_x and CO. For NO_x, maximum gas-firing emissions are based on a limit of 0.2 lb/MMBtu, which is equivalent to the federal NSPS for high heat release rate boilers. CO emissions due to natural gas burning are based on a maximum of 400 ppm CO in the exhaust gases, equivalent to 0.357 lb/MMBtu.

Emissions of other regulated pollutants are based on published emission factors, as indicated in the footnotes to Table 2-3. As shown in the table, fuel oil burning in the package boilers results in the maximum emissions for PM, PM10, and SO₂, whereas natural gas burning results in maximum emissions of NO_x, CO, and VOC.

2.3 NON-REGULATED POLLUTANTS

Estimates of maximum emissions of nonregulated pollutants due to distillate fuel oil burning are presented in Table 2-4. For distillate fuel oil firing, emission factors were found in EPA's compilation of toxic air pollutant emission factors (EPA, 1990) and in the emissions assessment document for industrial combustion sources (EPA, 1981). The emission factors and resulting emission rates are very low. No emission factors for toxic emissions due to natural gas firing were found in the literature, and therefore natural gas emissions are not presented in Table 2-4. Emission calculations are provided in Appendix A.

2.4 STACK PARAMETERS

Stack parameters for the package boilers are presented in Table 2-1. All three boilers will be served by a single common stack 200 feet (ft) tall with an 8.0 ft diameter. The exhaust gases from each boiler will be ducted to this common stack. The location of the new common stack in relation to the structures at SKC is shown in Figure 2-2. The stack will be located just south of the old power boilers. A location map of the SKC facility indicating the property boundaries is provided in Figure 2-3.

Table 2-4. Future Maximum Non-Regulated Pollutant Emissions for Proposed Package Boilers

Non-regulated Pollutants	Emission Factor (lb/10 ¹² Btu)	Ref	No. 2 Fuel Oil (0.5%S)			
			Activity Factor (MMBtu/hr)	Hourly Emissions per boiler (lb/hr)	Maximum Annual Emissions per boiler (TPY)	Total Annual Emissions Three boilers (TPY)
Arsenic (As)	4.2	1	164.5	0.0007	0.0030	0.0091
Barium (Ba)	2.7	2	164.5	0.0004	0.0019	0.006
Bromine (Br)	7.0	3	164.5	0.0012	0.0050	0.015
Cadmium (Cd)	10.5	1	164.5	0.0017	0.0076	0.023
Chlorine (Cl)	637.0	3	164.5	0.1048	0.46	1.38
Chromium (Cr)	47.5	1	164.5	0.0078	0.034	0.10
Copper (Cu)	280.0	1	164.5	0.0461	0.20	0.61
Manganese (Mn)	9.8	2	164.5	0.0016	0.0071	0.021
Molybdeum (Mo)	48.8	3	164.5	0.0080	0.035	0.11
Nickel (Ni)	170	1	164.5	0.0280	0.12	0.37
Phosphorous (P)	106.0	2	164.5	0.0174	0.076	0.23
Selenium (Se)	11.3	2	164.5	0.0019	0.0081	0.024
Tin (Sn)	330.0	3	164.5	0.0543	0.24	0.71

Notes: Maximum heat input is 164.5 MMBtu/hr per boiler for No. 2 Distillate Oil.

References:

1. Toxic Air Pollutant Emission Factors- A Compilation For Selected Air Toxic Compounds and Sources, Second Edition (EPA, 1990a).
2. Emissions Assessment of Conventional Stationary Combustion Systems: Volume V, based on distillate oil (EPA, 1981).
3. Emissions Assessment of Conventional Stationary Combustion Systems: Volume V, based on residual oil (EPA, 1981).

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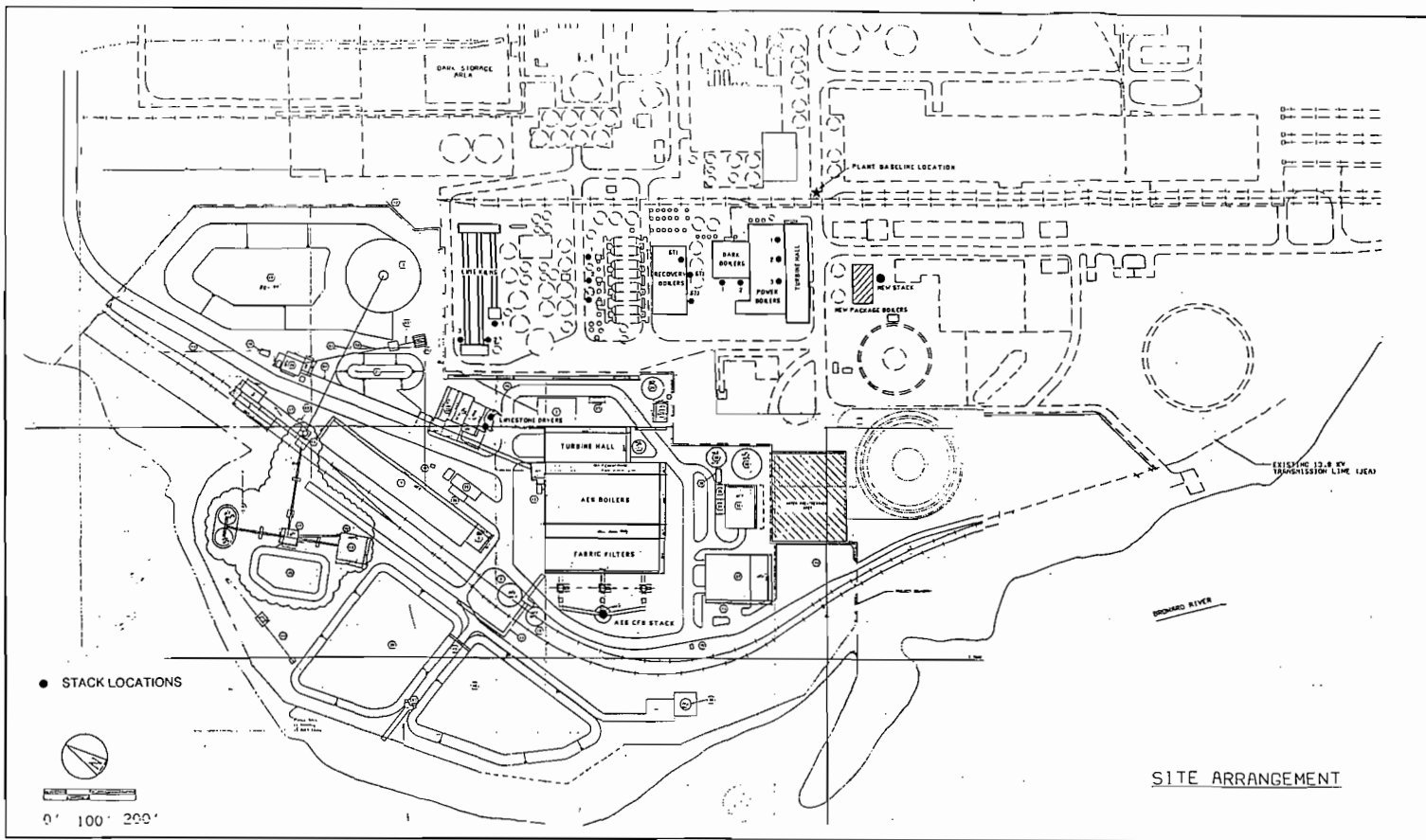
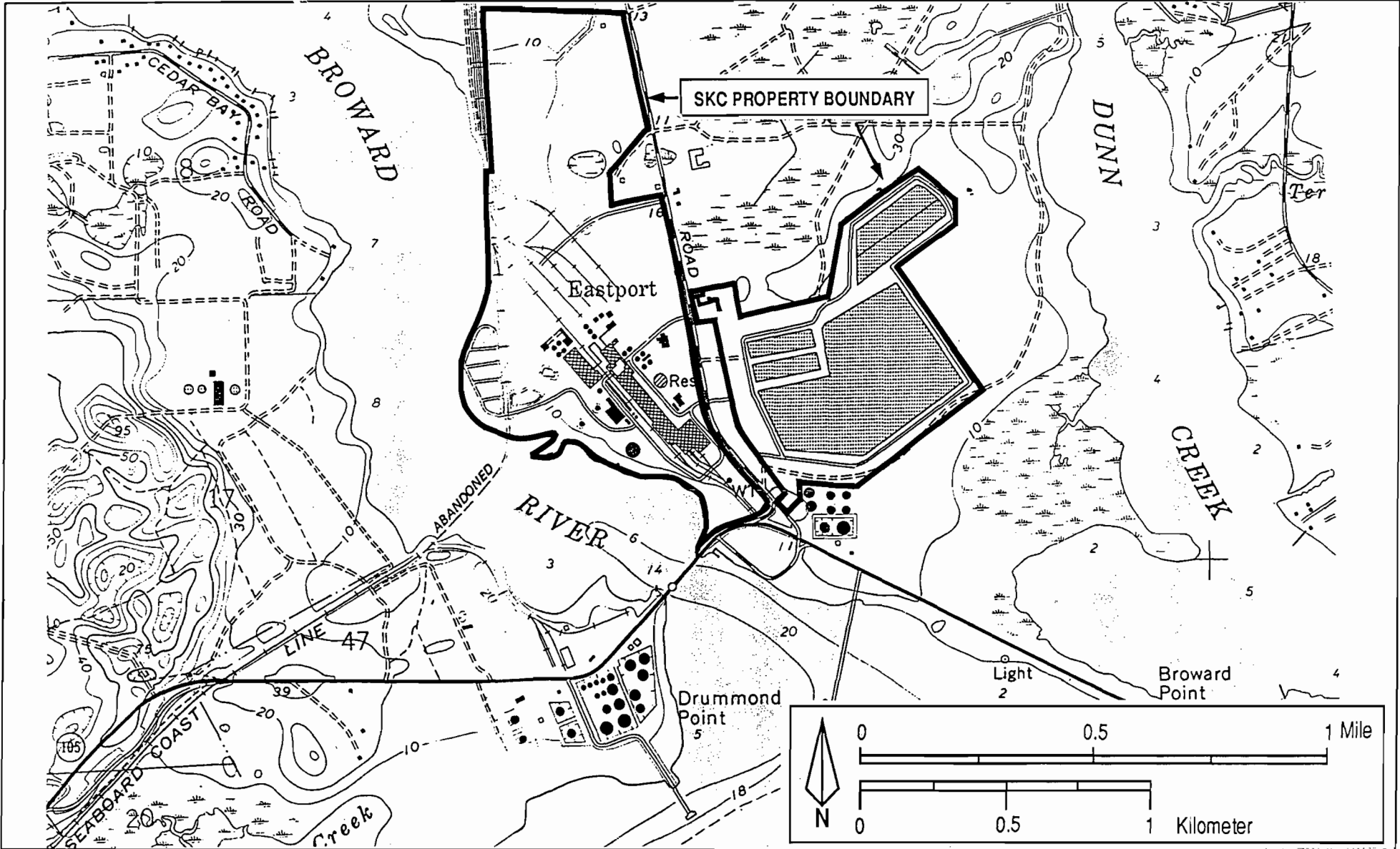


Figure 2-2 PLOT PLAN OF SEMINOLE KRAFT CORPORATION FACILITY





2-10

Figure 2-3 PROPERTY BOUNDARIES OF SEMINOLE KRAFT CORPORATION FACILITY



2.5 PERMIT APPLICATION FORMS

Construction permit application forms for the package boilers are contained in Appendix B.

2.6 MONITORING OF OPERATIONS AND EMISSIONS

SKC will continuously monitor steam pressure, steam temperature, and steam production rate for each package boiler. Based on this information, hourly heat input to each boiler will be calculated. Fuel characteristics will be based on supplier certification for natural gas and No. 2 fuel oil. In order to comply with the NSPS for industrial boilers, 40 CFR 60, Subpart Db, each receipt of No. 2 fuel oil at the facility will be accompanied by a supplier certification stating that the oil meets the specification for very low sulfur oil (i.e., that the oil contains no more than 0.5 percent by weight of sulfur or, when combusted, the oil has an SO₂ emission rate equal to or less than 0.5 lb/MMBtu).

The NSPS also requires that continuous opacity and NO_x monitors be installed and operated on the boilers. In order to comply with these requirements, SKC proposes to install continuous NO_x and opacity monitoring systems to measure the exhaust gases of each of the three package boilers. These will likely be installed in the ductwork between the boilers and the common stack. The continuous monitoring systems will meet the requirements of 40 CFR 60.

3.0 AIR QUALITY REVIEW REQUIREMENTS AND APPLICABILITY

The following discussion pertains to the federal and state air regulatory requirements and their applicability to SKC's proposed package boiler project. These requirements must be satisfied before construction can begin on the proposed project.

3.1 NATIONAL AND STATE AAQS

The existing applicable national and Florida ambient air quality standards (AAQS) are presented in Table 3-1. National primary AAQS were promulgated to protect the public health, and national secondary AAQS were promulgated to protect the public welfare from any known or anticipated adverse effects associated with the presence of pollutants in the ambient air. Areas of the country in violation of AAQS are designated as non-attainment areas, and new sources to be located in or near these areas may be subject to more stringent air permitting requirements.

3.2 PSD REQUIREMENTS

3.2.1 GENERAL REQUIREMENTS

Federal PSD requirements are contained in Title 40, Code of Federal Regulations (CFR), Part 52.21, Prevention of Significant Deterioration of Air Quality. The State of Florida has adopted PSD regulations (Chapter 17-2.500, F.A.C.) that essentially are identical to the federal regulations. PSD regulations require that all new major stationary sources or major modifications to existing major sources of air pollutants regulated under CAA be reviewed and a construction permit issued. Florida's State Implementation Plan (SIP), which contains PSD regulations, has been approved by EPA and PSD approval authority in Florida has been granted to FDER.

A "major facility" is defined under Florida PSD regulations as any one of 28 named source categories that has the potential to emit 100 tons per year (TPY) or more of any pollutant regulated under the CAA, or any other stationary facility that has the potential to emit 250 TPY or more of any pollutant regulated under CAA. A "source" is defined as an identifiable piece of process equipment or emissions unit. "Potential to emit" means the capability, at maximum design capacity, to emit a pollutant, considering the application of control equipment and any other federally enforceable limitations on the source's capacity. A "major modification" is

Table 3-1. National and State AAQS, Allowable PSD Increments, and Significance Levels ($\mu\text{g}/\text{m}^3$)

Pollutant	Averaging Time	AAQS			PSD Increments		Significant Impact Levels
		National		State of Florida	Class I	Class II	
		Primary Standard	Secondary Standard				
Particulate Matter (TSP)	Annual Geometric Mean	NA	NA	NA	5	19	1
	24-Hour Maximum ^a	NA	NA	NA	10	37	5
Particulate Matter (PM10)	Annual Arithmetic Mean	50	50	50	4 ^c	17 ^c	1
	24-Hour Maximum ^b	150	150	150	8 ^c	30 ^c	5
Sulfur Dioxide	Annual Arithmetic Mean	80	NA	60	2	20	1
	24-Hour Maximum ^b	365	NA	260	5	91	5
	3-Hour Maximum ^b	NA	1,300	1,300	25	512	25
Carbon Monoxide	8-Hour Maximum ^b	10,000	10,000	10,000	NA	NA	500
	1-Hour Maximum ^b	40,000	40,000	40,000	NA	NA	2,000
Nitrogen Dioxide	Annual Arithmetic Mean	100	100	100	2.5	25	1
Ozone	1-Hour Maximum ^d	235	235	235	NA	NA	NA
Lead	Calendar Quarter Arithmetic Mean	1.5	1.5	15	NA	NA	NA

Note: AAQS = ambient air quality standards.
 NA = not applicable, i.e., no standard exists.
 PM10 = particulate matter with aerodynamic diameter less than or equal to 10 micrometers.
 TSP = total suspended particulate matter.
 PSD = prevention of significant deterioration.
 $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.

^aMaximum concentration not to be exceeded more than once per year.
^bAchieved when the expected number of exceedances per year is less than 1.
^cProposed by EPA in the Federal Register on October 5, 1989.
^dAchieved when the expected number of days per year with concentrations above the standard is less than 1.

Sources: Federal Register, Vol. 43, No. 118, June 19, 1978.
 40 CFR 50.
 40 CFR 52.21.
 Chapter 17-2.400, F.A.C.

defined under PSD regulations as a change at an existing major stationary facility that increases emissions by greater than significant amounts. PSD significant emission rates are shown in Table 3-2.

PSD review is used to determine whether significant air quality deterioration will result from the new or modified facility. Major new facilities and major modifications are required to undergo the following analyses related to PSD for each pollutant emitted in significant amounts:

1. Source information,
2. Control technology review,
3. Source impact analysis,
4. Preconstruction air quality monitoring analysis, and
5. Additional impact analyses.

In addition to these analyses, a new source also must be reviewed with respect to good engineering practices (GEP) stack height regulations. If the proposed new source or modification is located in a non-attainment area for any pollutant, the source may be subject to non-attainment new source review requirements.

Discussions concerning each of these requirements are presented in the following sections.

3.2.2 INCREMENTS/CLASSIFICATIONS

The 1977 CAA amendments address the prevention of significant deterioration of air quality. The law specifies that certain increases in air quality concentrations above the baseline concentration level of SO₂ and PM(TSP) would constitute significant deterioration. The magnitude of the allowable increment depends on the classification of the area in which a new source (or modification) will be located or will have an impact. Congress also directed EPA to evaluate PSD increments for other criteria pollutants and, if appropriate, promulgate PSD increments for such pollutants.

Three classifications were designated, based on criteria established in the CAA amendments. Certain types of areas (international parks, national wilderness areas, memorial parks larger than 5,000 acres, and national parks larger than 6,000 acres) were designated as Class I areas. All

Table 3-2. PSD Significant Emission Rates and De Minimis Monitoring Concentrations

Pollutant	Regulated Under	Significant Emission Rate (TPY)	<u>De Minimis</u> Monitoring Concentration ($\mu\text{g}/\text{m}^3$)
Sulfur Dioxide	NAAQS, NSPS	40	13, 24-hour
Particulate Matter (TSP)	NAAQS, NSPS	25	10, 24-hour
Particulate Matter (PM10)	NAAQS	15	10, 24-hour
Nitrogen Oxides	NAAQS, NSPS	40	14, annual
Carbon Monoxide	NAAQS, NSPS	100	575, 8-hour
Volatile Organic Compounds	NAAQS, NSPS	40	100 TPY ^a
Lead	NAAQS	0.6	0.1, 3-month
Sulfuric Acid Mist	NSPS	7	NM
Total Fluorides	NSPS	3	0.25, 24-hour
Total Reduced Sulfur	NSPS	10	10, 1-hour
Reduced Sulfur Compounds	NSPS	10	10, 1-hour
Hydrogen Sulfide	NSPS	10	0.2, 1-hour
Asbestos	NESHAP	0.007	NM
Beryllium	NESHAP	0.0004	0.001, 24-hour
Mercury	NESHAP	0.1	0.25, 24-hour
Vinyl Chloride	NESHAP	1	15, 24-hour

Note: Ambient monitoring requirements for any pollutant may be exempted if the impact of the increase in emissions is below de minimis monitoring concentrations.

NAAQS = National Ambient Air Quality Standards.

NESHAP = National Emission Standards for Hazardous Air Pollutants.

NM = No ambient measurement method.

NSPS = New Source Performance Standards.

PM10 = particulate matter with aerodynamic diameter less than or equal to 10 micrometers.

PSD = prevention of significant deterioration.

TPY = tons per year.

TSP = total suspended particulate matter.

$\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.

^a No de minimis concentration; an increase in VOC emissions of 100 TPY or more will require monitoring analysis for ozone.

^b Any emission rate of these pollutants.

Source: F.A.C., Rule 17-2.500, Table 500-2.

other areas of the country were designated as Class II. PSD increments for Class III areas were defined, but no areas were designated as Class III. However, Congress made provisions in the law to allow the redesignation of Class II areas to Class III areas.

In 1978, EPA promulgated PSD regulations related to the requirements for classifications, increments, and area designations as set forth by Congress. PSD increments were initially set for only SO₂ and PM(TSP). However, in 1988, EPA promulgated final PSD regulations for NO_x and established PSD increments for nitrogen dioxide (NO₂).

The current federal PSD increments are shown in Table 3-1. As shown, Class I increments are the most stringent, allowing the smallest amount of air quality deterioration, while the Class III increments allow the greatest amount of deterioration. FDER has adopted the EPA class designations and allowable PSD increments for PM(TSP), SO₂, and NO₂. The Florida NO₂ increments were adopted in August 1990.

On October 5, 1989, EPA proposed PSD increments for PM₁₀. Those proposed increments are shown in Table 3-1. The PM₁₀ increments as proposed are somewhat lower in magnitude than the current PM(TSP) increments.

The term "baseline concentration" evolves from federal and state PSD regulations and refers to a fictitious concentration level corresponding to a specified baseline date and certain additional baseline sources. In reference to the baseline concentration, the baseline date actually includes three different dates:

1. The major source baseline date, which is January 6, 1975, in the cases of SO₂ and PM(TSP), and February 8, 1988, in the case of NO₂;
2. The minor source baseline date, which is the earliest date after the trigger date on which a major stationary source or major modification subject to PSD regulations submits a complete PSD application; and
3. The trigger date, which is August 7, 1977, for SO₂ and PM(TSP), and February 8, 1988, for NO₂.

By definition in the PSD regulations, baseline concentration means the ambient concentration level that exists in the baseline area at the time of the applicable baseline date. A baseline

concentration is determined for each pollutant for which a baseline date is established and includes:

1. The actual emissions representative of sources in existence on the applicable minor source baseline date; and
2. The allowable emissions of major stationary facilities that began construction before January 6, 1975, for SO₂ and PM(TSP) sources, or February 8, 1988, for NO_x sources, but which were not in operation by the applicable baseline date.

The following emissions are not included in the baseline concentration and, therefore, affect PSD increment consumption:

1. Actual emissions representative of a major stationary source on which construction began after January 6, 1975, for SO₂ and PM(TSP) sources, and after February 8, 1988, for NO_x sources; and
2. Actual emission increases and decreases at any stationary facility occurring after the major source baseline date that result from a physical change or change in the method of operation of the facility.

The minor source baseline date for SO₂ and PM(TSP) has been set as December 27, 1977, for the entire State of Florida (Chapter 17-2.450, F.A.C.). The minor source baseline date for NO₂ has been set as March 28, 1988, for all of Florida.

3.2.3 CONTROL TECHNOLOGY REVIEW

The control technology review requirements of the federal and state PSD regulations require that all applicable federal and state emission-limiting standards be met, and that BACT be applied to control emissions from the source [Chapter 17-2.500(5)(c), F.A.C]. The BACT requirements are applicable to all regulated pollutants for which the increase in emissions from the facility or modification exceeds the significant emission rate (see Table 3-2).

BACT is defined in Chapter 17-2.100(28), F.A.C. as:

An emissions limitation, including a visible emission standard, based on the maximum degree of reduction of each pollutant emitted which the department, on a case by case basis, taking into account energy, environmental, and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques (including fuel cleaning or treatment or innovative fuel combustion techniques) for control of such pollutant. If the Department determines that technological or economic limitations on the

application of measurement methodology to a particular part of a source or facility would make the imposition of an emission standard infeasible, a design, equipment, work practice, operational standard or combination thereof, may be prescribed instead to satisfy the requirement for the application of BACT. Such standard shall, to the degree possible, set forth the emissions reductions achievable by implementation of such design, equipment, work practice, or operation.

The requirements for BACT were promulgated within the framework of PSD in the 1977 amendments of the CAA [Public Law 95-95; Part C, Section 165(a)(4)]. The primary purpose of BACT is to optimize consumption of PSD air quality increments and thereby enlarge the potential for future economic growth without significantly degrading air quality (EPA, 1978; 1980). Guidelines for the evaluation of BACT can be found in EPA's Guidelines for Determining Best Available Control Technology (BACT) (EPA, 1978) and in the PSD Workshop Manual (EPA, 1980). These guidelines were promulgated by EPA to provide a consistent approach to BACT and to ensure that the impacts of alternative emission control systems are measured by the same set of parameters. In addition, through implementation of these guidelines, BACT in one area may not be identical to BACT in another area. According to EPA (1980),

BACT analyses for the same types of emissions unit and the same pollutants in different locations or situations may determine that different control strategies should be applied to the different sites, depending on site-specific factors. Therefore, BACT analyses must be conducted on a case-by-case basis.

The BACT requirements are intended to ensure that the control systems incorporated in the design of a proposed facility reflect the latest in control technologies used in a particular industry and take into consideration existing and future air quality in the vicinity of the proposed facility. BACT must, as a minimum, demonstrate compliance with NSPS for a source (if applicable). An evaluation of the air pollution control techniques and systems, including a cost-benefit analysis of alternative control technologies capable of achieving a higher degree of emission reduction than the proposed control technology, is required. The cost-benefit analysis requires the documentation of the materials, energy, and economic penalties associated with the proposed and alternative control systems, as well as the environmental benefits derived from these systems. A decision on BACT is to be based on sound judgment, balancing environmental benefits with energy, economic, and other impacts (EPA, 1978).

Historically, a "bottom-up" approach consistent with the BACT Guidelines and PSD Workshop Manual has been used. With this approach, an initial control level, which is usually NSPS, is evaluated against successively more stringent controls until a BACT level is selected.

Recently, EPA issued a draft guidance document on the top-down approach entitled Top-Down Best Available Control Technology Guidance Document (EPA, 1990a). The "draft" guidance requires starting with the most stringent (or top) technology and emissions limits that have been applied elsewhere to the same or a similar source category. The applicant must next provide a basis for rejecting this technology in favor of the next most stringent technology or propose to use it. Rejection of control alternatives may be based on technical or economic infeasibility. Such decisions are made on the basis of physical differences (e.g., fuel type), locational differences (e.g., availability of water), or significant differences that may exist in the environmental, economic, or energy impacts. The differences between the proposed facility and the facility on which the control technique was applied previously must be justified.

It is noted that the American Paper Institute (API) initiated legal action in 1989 against the EPA over the implementation of the top-down approach. EPA and API recently reached a settlement agreement (July 9, 1991) which requires EPA to initiate formal rulemaking for BACT procedures. A proposed rule is required by January 1992. However, until new rules are issued, EPA is requiring that the top-down approach still be used to determine BACT.

3.2.4 AIR QUALITY MONITORING REQUIREMENTS

In accordance with requirements of 40 CFR 52.21(m) and Chapter 17-2.500(5)(f), F.A.C, any application for a PSD permit must contain an analysis of continuous ambient air quality data in the area affected by the proposed major stationary facility or major modification. For a new major facility, the affected pollutants are those that the facility potentially would emit in significant amounts. For a major modification, the pollutants are those for which the net emissions increase exceeds the significant emission rate (see Table 3-2).

Ambient air monitoring for a period of up to 1 year is generally appropriate to satisfy the PSD monitoring requirements. A minimum of 4 months of data is required. Existing data from the vicinity of the proposed source may be used if the data meet certain quality assurance requirements; otherwise, additional data may need to be gathered. Guidance in designing a PSD

monitoring network is provided in EPA's Ambient Monitoring Guidelines for Prevention of Significant Deterioration (EPA, 1987a).

Under the exemption rule, FDER exempts a proposed major stationary facility or major modification from the monitoring requirements with respect to a particular pollutant if the emissions increase of the pollutant from the facility or modification would cause, in any area, air quality impacts less than the de minimis levels presented in Table 3-2 [Chapter 17-2.500(3)(e), F.A.C.]. If preconstruction monitoring data is required, existing data can be used if certain criteria are met (EPA, 1987a).

3.2.5 SOURCE IMPACT ANALYSIS

A source impact analysis must be performed for a proposed major source subject to PSD for each pollutant for which the increase in emissions exceeds the significant emission rate (Table 3-2). The PSD regulations specifically provide for the use of atmospheric dispersion models in performing impact analyses, estimating baseline and future air quality levels, and determining compliance with AAQS and allowable PSD increments. Designated EPA models normally must be used in performing the impact analysis. Specific applications for other than EPA-approved models require EPA's consultation and prior approval.

Guidance for the use and application of dispersion models is presented in the EPA publication Guideline on Air Quality Models (EPA, 1987b). The source impact analysis for criteria pollutants can be limited to the new or modified source if the net increase in impacts as a result of the new or modified source is below significance levels, as presented in Table 3-1.

Various lengths of record for meteorological data can be used for impact analyses. A 5-year period can be used with corresponding evaluation of highest, second-highest short-term concentrations for comparison to AAQS or PSD increments. The term "highest, second-highest" (HSH) refers to the highest of the second-highest concentrations at all receptors (i.e., the highest concentration at each receptor is discarded). The second-highest concentration is significant because short-term AAQS specify that the standard should not be exceeded at any location more than once a year. If less than 5 years of meteorological data are used in the modeling analysis, the highest concentration at each receptor must normally be used for comparison to air quality standards.

3.2.6 ADDITIONAL IMPACT ANALYSES

In addition to air quality impact analyses, federal and State of Florida PSD regulations require analysis of the impairment to visibility and the impacts on soils and vegetation that would occur as a result of the proposed source [40 CFR 52.21; Chapter 17-2.500(5)(e), F.A.C.]. These analyses are to be conducted primarily for PSD Class I areas. Impacts from general commercial, residential, industrial, and other growth associated with the source also must be addressed. These analyses are required for each pollutant emitted in significant amounts (Table 3-2).

3.2.7 GOOD ENGINEERING PRACTICE STACK HEIGHT

The 1977 CAA amendments require that the degree of emission limitation required for control of any pollutant not be affected by a stack height that exceeds GEP or any other dispersion technique. On July 8, 1985, EPA promulgated final stack height regulations (EPA, 1985). Identical regulations have been adopted by FDER (Chapter 17-2.270, F.A.C.). GEP stack height is defined as the highest of:

1. 65 meters (m); or
2. A height established by applying the formula:

$$H_g = H + 1.5L$$

where: H_g = GEP stack height,

H = Height of the structure or nearby structure, and

L = Lesser dimension (height or projected width) of nearby structure(s); or

3. A height demonstrated by a fluid model or field study.

"Nearby" is defined as a distance up to five times the lesser of the height or width dimensions of a structure or terrain feature but not greater than 0.8 kilometer (km). Although GEP stack height regulations require that the stack height used in modeling for determining compliance with AAQS and PSD increments not exceed the GEP stack height, the actual physical stack height may be greater than GEP.

3.3 NON-ATTAINMENT RULES

Based on the current non-attainment provisions (Chapter 17-2.510, F.A.C.), all major new facilities and modifications to existing major facilities located in a non-attainment area must undergo non-attainment review if the proposed pieces of equipment have the potential to emit 100

TPY or more of the non-attainment pollutant, or if the modification results in a significant net emission increase of the non-attainment pollutant.

For major facilities or major modifications that locate in an attainment or unclassifiable area, the non-attainment review procedures apply if the source or modification is located within the area of influence of a non-attainment area. The area of influence is defined as an area that is outside the boundary of a non-attainment area but within the locus of all points that are 50 km outside the boundary of the non-attainment area. Based on Chapter 17-2.510(2)(a)2.a, F.A.C., all VOC sources that are located within an area of influence are exempt from the provisions of new source review for non-attainment areas. Sources that emit other non-attainment pollutants and are located within the area of influence are subject to non-attainment review unless the maximum allowable emissions from the proposed source do not have a significant impact within the non-attainment area.

3.4 SOURCE APPLICABILITY

3.4.1 PSD REVIEW

3.4.1.1 Pollutant Applicability

The SKC facility is located in Duval County, which has been designated by EPA and FDER as an attainment area for SO₂ and NO_x. Duval County and surrounding counties are designated as PSD Class II areas for SO₂ and NO_x. The site is located about 61 km from a PSD Class I area (Okefenokee National Wilderness Area).

The SKC facility is considered to be an existing major stationary facility because potential emissions of certain regulated pollutants exceed 100 TPY (for example, potential SO₂ emissions currently exceeds 100 TPY). As a result, PSD review is required for the proposed modification for each pollutant for which the net increase in emissions exceeds the PSD significant emission rates presented in Table 3-2 (i.e., a major modification).

According to F.A.C. Rule 17-2.500(2)(e), the net increase in emissions is to be determined on the basis of changes in actual emissions. Historically, FDER and EPA have required that current actual emissions be compared with future maximum emissions (not actual) to determine PSD source applicability.

The recovery boilers, smelt tanks, lime kilns and lime slaker at SKC have recently been shut down. These shutdowns provide creditable emission reductions under the PSD regulations. Current actual baseline emissions for the sources which have been shut down are shown in Tables 3-3 through 3-5. The baseline emissions are based on source testing, emission factors, and data taken from the 1990-1991 annual operating reports submitted to FDER. The basis of the emissions are indicated in the tables. Supportive information is provided in Appendix C.

Future maximum emissions for the new package boilers were presented previously in Table 2-3. The PSD applicability analysis, based on the baseline and future annual emissions, is presented in Table 3-6. As shown, the increase in SO₂ and Be emissions, based on current actual and future maximum emissions, will exceed the PSD significant emission rate. Therefore, the proposed project is subject to PSD review for these pollutants.

3.4.1.2 Ambient Monitoring

Based upon the increase in emissions from SKC's proposed project, a PSD preconstruction ambient monitoring analysis is required for SO₂ and Be. However, if the increase in impacts of a pollutant is less than the de minimis monitoring concentration, then an exemption from the preconstruction ambient monitoring requirement is granted by FDER for that pollutant [FAC, Chapter 17-2.500(5)(f)]. In addition, if an acceptable ambient monitoring method for the pollutant has not been established by EPA, monitoring is not required.

The air quality impact analysis, presented in Section 6.0, demonstrates that the maximum impacts resulting from the proposed package boiler emissions will be above the de minimis monitoring concentrations for SO₂. There is no approved ambient monitoring method for Be. As a result, the proposed modification is subject to the preconstruction monitoring requirements for SO₂. These requirements are addressed in Section 4.0.

3.4.1.3 GEP Stack Height Analysis

The GEP stack height regulations require that a stack not exceed the GEP stack height. A single tall stack will be used to vent the three new package boilers. The most significant structure at SKC in the future will be the AES Cedar Bay fluidized bed boiler building, which is currently under construction. This building will be 161 ft tall, with a resulting GEP height of 402 ft

Table 3-3. Baseline Emissions for Recovery Boilers

Regulated Pollutant	Recovery Boiler No. 1			Recovery Boiler No. 2			Recovery Boiler No. 3		
	Operating	Emission	Annual	Operating	Emission	Annual	Operating	Emission	Annual
	Hours (hr/yr)	Rate (lb/hr)	Emissions (TPY)	Hours (hr/yr)	Rate (lb/hr)	Emissions (TPY)	Hours (hr/yr)	Rate (lb/hr)	Emissions (TPY)
Particulate (TSP)	--	--	107.8	--	--	156.0	--	--	129.7
Particulate (PM10)	--	--	80.8	--	--	117.0	--	--	97.2
Sulfur dioxide	8,322	0.9	3.7	8,140	0.7	2.8	8,347	0.2	0.8
Nitrogen oxides	8,322	28.8	119.8	8,140	31.8	129.4	8,347	34.3	143.2
Carbon monoxide	8,322	274.2	1,140.9	8,140	288.2	1,173.0	8,347	115.2	480.8
Volatile org. compds.	8,322	27.4	114.0	8,140	47.5	193.3	8,347	9.0	37.6
Lead	8,322	0	0	8,140	0.0	0	8,347	0	0
Mercury	8,322	0	0	8,140	0.0011	0.0045	8,347	0	0
Beryllium	8,322	0	0	8,140	0.0	0	8,347	0	0
Arsenic	8,322	0	0	8,140	0.0	0	8,347	0	0
Fluorides	8,322	--	--	8,140	--	--	8,347	--	--
Sulfuric acid mist	8,322	2.34	9.7	8,140	4.90	19.9	8,347	3.42	14.3
Total reduced sulfur	--	--	7.2	--	--	12.3	--	--	14.0
Asbestos	--	--	--	--	--	--	--	--	--
Vinyl Chloride	--	0	0	--	0	0	--	0	0

Notes: Operating hours represent actual operating hours for 1991.

Emission rates are measured emission rates during actual stack test, unless otherwise noted below.

PM and TRS annual emissions are based on average 1990-1991 emissions as reported in Annual

Operation Report For Air Emission Sources.

PM10 is based on extrapolation of AP-42 data for recovery boilers: 75% of PM is PM10.

Fluorides and asbestos were not measured; there are no emission factors; there are no known emissions.

Table 3-4. Baseline Emissions for Smelt Dissolving Tanks

Regulated Pollutant	Smelt Tank No. 1		Smelt Tank No. 2		Smelt Tank No. 3	
	Operating	Annual	Operating	Annual	Operating	Annual
	Hours (hr/yr)	Emissions (TPY)	Hours (hr/yr)	Emissions (TPY)	Hours (hr/yr)	Emissions (TPY)
Particulate (TSP)	--	22.6	--	23.8	--	36.9
Particulate (PM10)	--	20.2	--	21.3	--	33.0
Sulfur dioxide	8,322	2.9	8,140	2.8	8,347	2.9
Nitrogen oxides	--	--	--	--	--	--
Carbon monoxide	--	--	--	--	--	--
Volatile org. compds.	--	--	--	--	--	--
Lead	--	--	--	--	--	--
Mercury	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--
Arsenic	--	--	--	--	--	--
Fluorides	--	--	--	--	--	--
Sulfuric acid mist	--	--	--	--	--	--
Total reduced sulfur	--	1.6	--	1.8	--	1.6
Asbestos	--	--	--	--	--	--
Vinyl Chloride	--	--	--	--	--	--

Notes: Operating hours represent actual operating hours for 1991.

PM and TRS annual emissions are based on average 1990-1991 emissions as reported in Annual Operation Report For Air Emission Sources.

PM10 is based on AP-42 data for controlled PM from smelt tanks: 89.5% of PM is PM10.

SO2 emissions based on AP-42 factor of 0.2 lb/ton ADUP, and 80% removal efficiency for spray chamber with demister pad for PM control. Total pulp production was as follows:

1990-- 459,683 tons ADUP

1991-- 395,040 tons ADUP

Average-- 427,362 tons ADUP

$427,362 \text{ tons ADUP} \times 0.2 \text{ lb/ton} \times (1-0.80) / 2,000 \text{ lb/ton} = 8.55 \text{ TPY}$

Divide SO2 emissions between smelt tanks based on average operating hours for 1990-1991.

Table 3-5. Baseline Emissions for Lime Kilns

Regulated Pollutant	Emission Factor	Lime Kiln No. 1		Lime Kiln No. 2		Lime Kiln No. 3	
		Activity Factor	Annual Emissions (TPY)	Activity Factor	Annual Emissions (TPY)	Activity Factor	Annual Emissions (TPY)
Particulate (TSP)	--	--	3.8	--	21.6	--	19.6
Particulate (PM10)	--	--	3.7	--	21.2	--	19.3
Sulfur dioxide	0.16/2.18/1.76 lb/hr ^a	840 hr/yr	0.1	7,769 hr/yr	8.5	7,577 hr/yr	6.7
Nitrogen oxides	15.3/10.7/15.9 lb/hr ^a	840 hr/yr	6.4	7,769 hr/yr	41.6	7,577 hr/yr	60.2
Carbon monoxide	0.1 lb/ton ADUP	1,170 hr/yr	1.5	7,732 hr/yr	10.2	7,598 hr/yr	10.0
Volatile org. compds.	0.13 lb/MM Btu	31,751 MM Btu/yr	2.1	293,599 MM Btu/yr	19.1	286,343 MM Btu/yr	18.6
Lead	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--	--
Arsenic	--	--	--	--	--	--	--
Fluorides	--	--	--	--	--	--	--
Sulfuric acid mist	--	--	--	--	--	--	--
Total reduced sulfur	--	--	0.2	--	1.7	--	1.4
Asbestos	--	--	--	--	--	--	--
Vinyl Chloride	--	--	--	--	--	--	--

^a Emission factors for Lime Kilns No. 1, No. 2 and No. 3, respectively, based on actual test data.

Notes: Where actual stack test data were available, operating hours represent actual operating hours for 1991.

Where emission factors were used, operating hours represent two year average, 1990-1991.

PM and TRS annual emissions are based on average 1990-1991 emissions as reported in Annual Operation Report For Air Emission Sources.

PM10 is based on AP-42 data for lime kilns controlled with venturi scrubber: 98.3% of PM is PM10.

SO2 emissions based on average of stack tests conducted in 1989.

NOx emissions based on stack tests conducted on each lime kiln in 1992.

CO emissions based on AP-42 factor of 0.1 lb/ton ADUP.

Total pulp production was as follows:

1990--	459,683 tons ADUP
1991--	395,040 tons ADUP
Average--	427,362 tons ADUP

CO: 427,362 tons ADUP x 0.1 lb/ton / 2,000 lb/ton = 21.4 TPY

Divide emissions between lime kilns based on average operating hours in 1990-1991.

VOC emissions based on heat input and NCASI emission factors (see attached)

Heat input based on actual fuel oil fired in kilns in 1991, using 142,000 Btu/gal for fuel oil.

	Kiln 1	Kiln 2	Kiln 3
Gallons--	223,600	2,067,600	2,016,500

Table 3-6. PSD Source Applicability Analysis, SKC Package Boiler Project

Regulated Pollutant	Baseline Emissions (TPY)										Future Emissions (TPY)				Net Change (TPY)	Significant Emission Rate (TPY)	PSD Applies ?
	RB1	RB2	RB3	SDT1	SDT2	SDT3	LK1	LK2	LK3	Totals	PB1	PB2	PB3	Totals			
Particulate (TSP)	107.8	156.0	129.7	22.6	23.8	36.9	3.8	21.6	19.6	521.8	36.05	36.05	36.05	108.1	-413.7	25	No
Particulate (PM10)	80.8	117.0	97.2	20.2	21.3	33.0	3.7	21.2	19.3	413.7	18.00	18.00	18.00	54.0	-359.7	15	No
Sulfur dioxide	3.7	2.8	0.8	2.9	2.8	2.9	0.1	8.5	6.7	31.2	216.15	216.15	216.15	648.5	617.3	40	Yes
Nitrogen oxides	119.8	129.4	143.2	--	--	--	6.4	41.6	60.2	500.6	153.04	153.04	153.04	459.1	-41.5	40	No
Carbon monoxide	1,140.9	1,173.0	480.8	--	--	--	1.5	10.2	10.0	2,816.4	273.31	273.31	273.31	819.9	-1,996.5	100	No
Vol. org. compds.	114.0	193.3	37.6	--	--	--	2.1	19.1	18.6	384.7	1.05	1.05	1.05	3.2	-381.5	40	No
Lead	0	0	0	--	--	--	--	--	--	0.0	0.0064	0.0064	0.0064	0.019	0.019	0.6	No
Mercury	0	0.0045	0	--	--	--	--	--	--	0.0045	0.0024	0.0024	0.0024	0.0073	0.0028	0.1	No
Beryllium	0	0	0	--	--	--	--	--	--	0.0	0.0018	0.0018	0.0018	0.0054	0.0054	0.0004	Yes
Fluorides	--	--	--	--	--	--	--	--	--	0.0	0.023	0.023	0.023	0.069	0.069	3	No
Sulfuric acid mist	9.7	19.9	14.3	--	--	--	--	--	--	43.9	10.8	10.8	10.8	32.4	-11.5	7	No
Total reduced sulfur	7.2	12.3	14.0	1.6	1.8	1.6	0.2	1.7	1.4	41.8	--	--	--	0	-41.8	10	No
Asbestos	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	0.007	No
Vinyl Chloride	0	0	0	--	--	--	--	--	--	--	--	--	--	--	0	0	No

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[161 + (1.5 x 161)]. The new SKC stack will be within the area of influence of this building (refer to Figure 2-2). As a result, the proposed stack height of 200 ft will not exceed the GEP height.

3.4.2 NON-ATTAINMENT REVIEW

The SKC facility is located in Duval County, which has been designated as an attainment or unclassifiable area for all pollutants except ozone. As shown in Table 3-6, there will be a net decrease in VOC emissions due to the proposed project. As a result, non-attainment review for VOC does not apply to the proposed project.

4.0 AMBIENT MONITORING ANALYSIS

4.1 MONITORING REQUIREMENTS

The CAA Amendments of 1977 require that the owner or operator of any proposed major new source or major modification conduct ambient air monitoring for applicable pollutants. As discussed in the source applicability section, Section 3.4, SO₂ requires an air quality analysis to meet PSD preconstruction monitoring requirements for the proposed project. Monitoring, if required, must be conducted for a period of up to 1 year prior to submission of a construction permit application. However, if the increase in impacts due to the proposed new source or modification is less than the PSD de minimis monitoring concentrations, the applicant is exempted from the PSD preconstruction monitoring requirements.

For SO₂, the de minimis level is 13 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), 24-hour average. As demonstrated in Section 6.0, the predicted maximum 24-hour SO₂ impacts due to the proposed package boilers is 105 $\mu\text{g}/\text{m}^3$. As a result, a preconstruction monitoring analysis for SO₂ is required.

According to the PSD monitoring guidelines (EPA, 1987b), existing air quality data can be used to satisfy the preconstruction monitoring analysis requirement, provided certain criteria are met. The monitoring analysis for SO₂ is presented in Section 4.2.

4.2 PRECONSTRUCTION MONITORING ANALYSIS FOR SO₂

According to the PSD monitoring guidelines, for sources located in an area of multi-source emissions and basically flat terrain, an existing monitor located within 10 km of the proposed source can be used to satisfy the monitoring requirement. In the case of SKC, the Jacksonville area meets the criteria, since it is an area of multi-source SO₂ emissions and is located in basically flat terrain (refer to Section 6.0). As a result, an SO₂ monitor located within 10 km of SKC can be used for preconstruction monitoring.

All continuous SO₂ monitors currently operating in Duval County, as reported by FDER, are listed in Table 4-1. As shown, there are five monitors located within 10 km of SKC. The SO₂ data from these stations are presented in Table 4-2. Use of these data satisfies the SO₂ preconstruction monitoring requirement.

Table 4-1. Continuous SO₂ Monitors in Duval County

Area Site #	Location	Monitoring Objective	UTM Coordinates (km)		Location Relative to Seminole Kraft (km)		Distance (km)	Direction (°)
			East	North	X	Y		
1960-081-H02	Cedar Bay STP	Source	440.36	3365.56	-1.44	-0.04	1.4	268
1960-094-H02	9501 August Road	Source	444.72	3363.60	2.92	-2.00	3.5	124
1960-079-H02	Ft. Caroline STP	Population Exposure	443.72	3360.38	1.92	-5.22	5.6	160
1960-093-H02	5060 Cedar Pt. Rd.	Source	448.80	3363.60	7.00	-2.00	7.3	106
1960-032-H02	Kooker Park	High concentration	438.92	3358.24	-2.88	-7.36	7.9	201
1960-080-H02	1605 Minerva Street	Source	437.26	3353.00	-4.54	-12.60	13.4	200
Seminole Kraft Site UTM Coordinates:			441.80	3365.60				

Note: ° = degrees.
 km = kilometers.
 UTM = Universal Transverse Mercator

Table 4-2. Summary of Continuous SO₂ Air Quality Data in Duval County, 1989 -1991

SAROAD Site No. (Distance Away)	Location	Monitoring Method	Period	No. of Obs.	Percent Data Recovery	SO ₂ Concentration ($\mu\text{g}/\text{m}^3$)		
						3-Hour ^a	24-Hour ^a	Annual Average
1960-081-HO2 (1.4 km)	Cedar Bay STP	Continuous	1989	8410	96.0	122	38	8
			1990	8517	97.2	140	42	7
			1991	8315	94.9	187	41	7
1960-094-HO2 (3.5 km)	9501 August Rd.	Continuous	1989	8186	93.4	211	58	8
			1990	8388	95.8	198	54	7
			1991	8060	92.0	169	55	7
1960-079-HO2 (5.6 km)	Ft. Caroline STP	Continuous	1989	8071	92.1	167	71	8
			1990 ^b	1689	19.3	86	34	6
			1991 ^b	2147	24.5	193	41	9
1960-093-HO2 (7.3 km)	5060 Cedar Pt. Rd.	Continuous	1989	6776	77.4	225	70	10
			1990	8547	97.6	137	38	6
			1991	8180	93.4	206	45	5
1960-032-HO2 (7.9 km)	Kooker Park	Continuous	1989	7586	86.6	129	33	6
			1990	8401	95.9	107	35	8
			1991	8172	93.3	108	32	7
1960-080-HO2 (13.4 km)	1605 Minerva St.	Continuous	1989	7536	86.0	107	35	7
			1990	8439	96.3	68	28	5
			1991	8372	95.6	83	30	6

Note: km = kilometers.
 No. of Obs. = number of observations.
 SO₂ = sulfur dioxide.
 $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.

^a Second-highest concentrations for calendar year are shown.

^b Suspended operation 3/90-8/91.

Source: FDER, 1989, 1990, 1991.

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4.3 BACKGROUND SO₂ CONCENTRATIONS

A background SO₂ concentration must be estimated to account for SO₂ sources which are not explicitly included in the atmospheric dispersion modeling analysis. In order to estimate reasonable background SO₂ concentrations, a review of recent, available SO₂ monitoring data in Duval County was performed. Table 4-1 list all of the continuous SO₂ monitors currently in operation in Duval County and their respective location relative to Seminole Kraft. Annual average, 24-hour maximums, and 3-hour maximums for SO₂ for each monitor are shown in Table 4-2. The Ft. Caroline STP monitor suspended operation from March, 1990 to October 1991, so the station's 1990 and 1991 averages are biased. All of the other five monitor's data recoveries exceeded 95 percent for that year. All stations except Kooker Park reported the lowest annual average SO₂ concentrations in 1990.

All of the SO₂ monitors except one are source or high-concentration oriented. As a result, highest short-term and annual average concentrations measured at these stations are expected to have significant contributions from major SO₂ point sources. The Ft. Caroline STP could also be impacted by major sources, due to its location only 5.6 km from SKC. Use of the highest short-term and annual average SO₂ concentrations from any of these stations is expected to over-estimate the actual background SO₂ concentrations, since all major sources of SO₂ (> 100 TPY) are explicitly included in the dispersion modeling analysis (refer to Section 6.0).

Therefore, it is reasonable to use the lowest of the second-highest short-term and annual average concentrations reported at any of the monitoring stations as the SO₂ background concentrations to be used in the modeling analysis. These concentrations are 68 $\mu\text{g}/\text{m}^3$, 3-hour; 28 $\mu\text{g}/\text{m}^3$, 24-hour; and 5 $\mu\text{g}/\text{m}^3$, annual average (see Table 4-2). These were all measured at the Minerva Street monitoring station.

5.0 BEST AVAILABLE CONTROL TECHNOLOGY EVALUATION

As presented in Section 3.4, the net increase in the emissions of SO₂ and Be from SKC's proposed package boilers will exceed their respective PSD significant emission rates based on continuous use of No. 2 fuel oil as an alternative fuel (see Table 3-6). Therefore, BACT analyses for these two pollutants is required for the proposed project. The complete "top-down" BACT evaluation for each PSD pollutant includes the identification of the respective control technologies; the environmental, energy, and economic impact evaluations of all technically feasible control methods; and the BACT analysis summary.

5.1 BACT DETERMINATION FOR SULFUR DIOXIDE (SO₂) EMISSIONS

5.1.1 IDENTIFICATION OF SO₂ EMISSION CONTROL TECHNOLOGIES FOR UTILITY BOILERS

In this section, the available control technologies capable of reducing SO₂ emissions produced from firing No. 2 fuel oil as an alternative fuel will be evaluated. Potential application as BACT for the three proposed package boilers, rated on fuel oil at 164.5 MMBtu/hr each, is discussed. The three proposed boilers will have a common stack, thus the combined exhaust flow rate of 160,500 acfm will be the basis for evaluating and sizing any add-on SO₂ scrubbing system.

In boilers firing fossil fuels, sulfur compounds are produced by the combustion process in which nearly complete oxidation of the fuel-bound sulfur occurs. These sulfur compounds are primarily SO₂, with a smaller quantity of sulfur trioxide (SO₃) that eventually converts into acid mist. The amount of SO₂ emissions is directly proportional to the sulfur and sulfate content in the fuel. Reducing SO₂ emissions by boiler modification is not feasible because the firing mechanism does not affect SO₂ emissions. Generally, complete oxidation of sulfur in fuel is readily achieved before the complete combustion of the primary carbon fuel element in fossil fuel.

Typically, SO₂ emission reduction is accomplished by either using low-sulfur fuel or treating the flue gas with a variety of flue gas desulfurization (FGD) processes. Standard FGD processes for the proposed package boilers are add-on SO₂ scrubbers of either the wet or dry type. Wet FGD processes include wet lime/limestone scrubber and caustic (sodium-based) wet scrubber. Dry FGD process is the lime spray-dryer scrubber.

The discussion of each potential SO₂ control technology includes a description of the technology and the potential SO₂ emission reduction if it is concluded that the technology is technically feasible.

Low-Sulfur Fuel

Any of the standard fossil fuels, such as natural gas, distillate and residual oils derived from petroleum crude, and coal can be used as heat input sources in industrial boilers. The heating values of these fuels range from 20,000 to 23,200 Btu/lb for natural gas; 17,500 to 19,400 Btu/lb for residual oils; 19,200 to 19,900 Btu/lb for distillate oils; and 10,000 to 14,000 Btu/lb for typical coals. The variation in sulfur content of the fuel is generally inversely proportional to the heating value for each fuel. The sulfur content of distillate oil ranges up to 0.5 percent, up to 3.5 percent for residual oil, and up to 3.0 percent for coal. Since the level of SO₂ emissions is directly related to the amount of sulfur in the fuel, a low-sulfur-containing fuel can be used to meet the SO₂ limitation specified by the NSPS regulations for industrial boilers.

For the proposed boilers, SKC is proposing to use natural gas and very low sulfur No. 2 diesel oil as the primary and secondary fuels. Discussion of low-sulfur fuel in this section only pertains to the continuous firing of oil as the alternative fuel. Firing of natural gas (which has insignificant sulfur content) as the primary fuel produces minimal SO₂ emissions.

Currently, No. 2 fuel oil with a maximum sulfur content of 0.5 percent is the only low sulfur oil available in Florida, particularly in the vicinity of Jacksonville. Historical data indicate that the average sulfur content of this fuel has been approximately 0.3 percent. Nine major petroleum fuel suppliers in Florida that were contacted verified this current market condition for low-sulfur fuel oil. These suppliers include four main distributors in the Jacksonville area, such as Hess Oil (contacted Russell Henn at 908-750-7100), Stuart Petroleum (contacted Cathy Crawford at 904-355-9675), Gate Fuel Services (contacted Donna Ponder at 904-268-5690), and Clay Oil Company (contacted Toni Gainey at 1-800-824-4213). Other suppliers that were contacted include Citgo in Orlando (contacted Don Brandenburg at 407-957-6569), and Coastal Fuels at Port Manatee (contacted Mike Permaldeo at 1-800-282-3495). Attempts were made to predict the future availability and pricing of lower sulfur fuel (containing less than 0.3 percent sulfur); however, none of the fuel suppliers could provide specific projections on either pricing or future availability in Florida. Therefore, No. 2 fuel oil with a maximum of 0.5 percent sulfur is considered the only available low sulfur fuel oil for the proposed package boilers.

Under current NSPS regulations for industrial boilers (40 CFR 60, Subpart Db), very low sulfur fuel oil of up to 0.5 percent sulfur content is considered an acceptable option for reducing SO₂ emissions. SKC is proposing to use natural gas and 0.5 percent sulfur oil because they are the best available low sulfur alternative fuels for the proposed project. The equivalent maximum SO₂ emission factor for 0.5 percent sulfur fuel is approximately 0.5 lb/MMBtu. The actual potential annual SO₂ emissions from oil-firing are based on an average sulfur content of 0.3 percent, equivalent to approximately 0.3 lb/MMBtu heat-specific SO₂ emission rate.

Wet Lime/Limestone Scrubber--The wet lime or limestone FGD process uses either hydrated lime [(Ca(OH)₂] or calcium carbonate (CaCO₃) to absorb SO₂ compounds from the flue gas. Either Ca(OH)₂ or CaCO₃ reagent is added to water to make a solution and then sprayed into the flue gas inside a spray tower. Upon contact, the SO₂ compounds react with the reagents to form calcium sulfite (CaSO₃·½H₂O) initially, then calcium sulfate (CaSO₄·2H₂O) with further oxidation.

The calcium sulfite and calcium sulfate precipitate as crystals at the bottom of the wet scrubber or in a holding tank that is downstream from the scrubber and designed to receive the precipitated solids and liquid solution. The solids from the holding tank are separated from the system by way of a solid-liquid separator. The liquids from the solid-liquid separator are returned to the holding tank where they are combined with the effluent and recycled through the scrubber to absorb additional SO₂.

Wet lime/limestone scrubbing processes are typically capable of reducing SO₂ emissions with a removal efficiency between 70 to 93 percent. Technically, a higher efficiency of up to 95 percent may be achievable by adding adipic acid to the scrubbing liquid because the reactions between the lime and limestone with SO₂ are more favorable at lower pH levels. Process controls for the wet FGD technology have not advanced precisely enough to confidently state that performance at one location can be duplicated at another. Margins of allowances must be applied to the best performances achieved at other plants. It should be noted that those performances were not for application on oil-fired boiler because wet lime scrubber having a high solid/sludge processing volume is usually not applied to oil-fired boilers producing a relatively small amount of particulate matter. Since the wet lime/limestone scrubbing processes can potentially achieve 95 percent removal efficiency, the 95 percent will be used in this analysis.

Spray-Dryer FGD Scrubber

In a spray-dryer FGD process, the flue gas entering the scrubber contacts a sprayed slurry of either wet lime or sodium carbonate (Na_2CO_3) sorbent. Sufficient contact is maintained in this scrubber, which is designed with prolonged residence time (5 to 10 seconds), allowing the absorbing reactions and the drying process to be completed. The SO_2 compounds are absorbed by the alkaline slurry to form pseudo liquid-solid phase salts that are dried into crystals with approximately 1 percent free moisture by the heat of the flue gas.

The exact mechanisms for the absorption of SO_2 and formation of alkaline salts are not clear. Overall, the SO_2 reacts with lime or sodium sorbent to form initially either $\text{CaSO}_3 \cdot \frac{1}{2}\text{H}_2\text{O}$ or sodium sulfite (Na_2SO_3). Upon further oxidation or SO_2 absorption, enhanced by the drying process, the sulfite salts will transform into $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ or sodium sulfate solids. Generally, the spray dryer FGD process requires a particulate control device downstream because the byproducts are dry crystalline sulfate salts.

The average removal efficiency of the spray-dryer FGD system varies from 70 to 90 percent for industrial boilers. The higher removal efficiency can be achieved by lowering the flue gas temperature and by maintaining an optimum ratio of either lime- or sodium-based sorbent and SO_2 gas. Furthermore, the type of particulate removal device used may enhance SO_2 removal efficiency. By using a fabric filter instead of an electrostatic precipitator (ESP), the slurry collected on the filter bag surfaces can absorb an additional 5 percent of total SO_2 emissions. Up to 92-percent SO_2 removal efficiency has been indicated as achievable with the combination of a lime spray-dryer FGD scrubber and a baghouse configuration applied to a coal-fired utility boiler (i.e., FDER's BACT determination for PG&E/Bectel power plant at Indiantown, Florida). There are no demonstrated installations of dry scrubber process to control SO_2 emissions from oil-fired boilers because such application will generate a high volume of solid waste for controlling a combustion process that produces a relatively low level of particulate matter. For technical completeness, a 92 percent reduction of SO_2 emission via dry scrubber will be evaluated for the proposed project.

Sodium-Based Wet Scrubber

The sodium-based scrubbing process uses a solution of either caustic [i.e., sodium hydroxide (NaOH)] or soda ash (i.e., Na_2CO_3) to absorb SO_2 from the flue gas. The overall mechanisms are vapor-liquid reactions in which the flue gas SO_2 reacts with either NaOH or Na_2CO_3 solution

to form sodium sulfite (Na_2SO_3) droplets. Instantaneously, the Na_2SO_3 will react with absorbed oxygen from the flue gas to produce a sodium sulfate (Na_2SO_4) solution. The final scrubber effluent is a mixture of sodium alkaline salt liquor.

This process is capable of achieving high SO_2 removal efficiencies over a wider range of SO_2 concentrations. Overall, this process can be more effective than both the lime- or sodium-based sorbent in the pseudo liquid-solid phase because the scrubbing liquid can contain higher concentrations of sodium reagent. Also, reactivity is higher between liquid and vapor phases than between the pseudo liquid-solid (i.e., calcium- or sodium-based slurry) and vapor phases. However, the sodium solution scrubbing process consumes a premium chemical (caustic or soda ash) to produce a high alkaline waste liquor that requires proper disposal. The sodium-based wet scrubber can achieve an SO_2 removal efficiency of between 90 and 95 percent, with higher efficiencies achievable on relatively high inlet SO_2 concentrations and high reagent to SO_2 ratio.

Of the three add-on FGD processes being evaluated for the proposed project, this sodium-based wet scrubber is the only FGD process that can be considered as a demonstrated technology for controlling SO_2 emissions from oil-fired boilers (see Table 5-1 on the summary of BACT determinations for SO_2 emissions from oil-fired boilers). A 95 percent control of SO_2 emissions by using the caustic (sodium-based) wet scrubber will be evaluated for the proposed project.

5.1.2 EVALUATION OF TECHNICALLY FEASIBLE SO_2 CONTROL METHODS

This section examines all of the technically feasible SO_2 control methods identified in the previous discussion. These technically feasible SO_2 reduction methods are ranked according to their total removal effectiveness. Each alternative is then further examined with regard to its technical issues, environmental effects, energy requirements and impacts, and economic impacts.

Presented in Table 5-1 is a summary of all BACT determinations for SO_2 emissions from the oil-fired external combustion stationary sources rated between 10 MMBtu/hr to 756 MMBtu/hr heat input issued since 1980. These sources generally are referred to as oil-fired industrial boilers. One third of all sources noted were from paper mill facilities. This information was obtained from BACT/LAER Clearinghouse documents by way of the BACT/BLIS database through EPA's National Computer Center located at Research Triangle Park in North Carolina (EPA, 1989; EPA, 1991a).

Table 5-1. Summary of BACT Determinations for SO2 Emissions from Oil-fired External Combustion Boilers (> 10 MMBtu/hr).

Company Name	Source Type	State	Permit Number	Permit Issued Date	Boiler Size (MMBtu/hr)	SO2 Emission Limit			Control Method, Comments	Control Efficiency (%)
						(lb/MMBtu)	(lb/hr)	(TPY)		
• Wausau Paper Mills Co.	Mod	WI	88-POY-106	29-Jun-89	50.0	UD	UD	UD	0.8% S Fuel when N.G. is interrupted	--
• Wisconsin Tissue Mills, Inc.	Mod	WI	88-DLI-073	28-Feb-89	75.0	0.30	22.4	UD	0.29% S in #2 Oil Backup to N.G.	--
• Wisconsin Tissue Mills, Inc.	Mod	WI	88-DLI-073	28-Feb-89	75.8	0.88	65.8	UD	0.8% S in #6 Oil Backup to N.G.	--
• Wisconsin Tissue Mills, Inc.	Mod	WI	88-DLI-024	10-Oct-88	146.4	1.10	161.04	705.4	Limit S in #6 Oil to 1%	--
• Northeast Utilities, NNECO ¹	Mod	CT	199-0001	23-Sep-88	28.3	0.22	6.23	2.7	Limit S in #2 Oil to 0.5%	--
• Merch Sharp & Dohme	Mod	PA	46-302-169	16-Sep-87	120.0	0.50	60.0	UD	Limit S in Oil to 0.5 Wt%	--
• Berry Holding Company	Mod	CA	4016022 & 023	02-Oct-85	62.5	0.04	2.23	UD	Caustic Scrubber, Pack Tower	95.0%
• Berry Holding Company	Mod	CA	4016014A & 015B	02-Oct-85	31.5	0.04	1.12	UD	Caustic Scrubber, Pack Tower	95.0%
• Delco Moraine Div., GMC ²	Mod	OH	08-654	01-Jul-85	144.0	1.30	187.20	UD	Undetermined	--
Okeelanta Corporation ¹	New	FL	AC50-191876	29-Jul-91	205.0	0.51	105.5	132.9	Limit 0.5% S in #2 Oil	--
• Hadson Power 13	New	VA	51019	17-Aug-90	74	0.31	22.8	UD	Combustion of No.2 Oil, 0.3% S Max	--
• Mecklenburg	New	VA	30861	09-May-90	304.8	0.40	94.5	UD	Limit 0.3% S in #2 Oil for Aux Boiler	--
• Hadson Power 12	New	VA	30859	27-Oct-89	139.42	0.31	43.2	UD	Combustion of No.2 Oil, 0.3% S Max	--
• Exeter Energy Limited Partners ¹	New	CT	176-0004	28-Aug-89	11.2	0.229	2.56	0.5	400 op. hrs/yr	--
• Hopewell Cogeneration	New	VA	50967	01-Jul-88	197.0	0.2	39.4	UD	Limit of 12 MMgal No.2 Oil, 0.2% S	--
• Simpson Paper Co.	New	CA	86-176	24-Feb-88	60.08	0.17	10.42	45.0	Max 0.5% S Oil	--
• Owens-Illinois, Inc.	New	OH	04-367	26-Nov-86	10.3	0.52	5.36	23.5	Nat. Gas & #2 Oil Firing, SIP	--
• Georgia-Pacific Corporation	New	OH	14-1043	01-Dec-85	118.0	1.06	125.08	547.9	Limit S in No.6 Oil to 1%	--
• Hopco*	New	CA	4099002-013	04-Dec-84	62.5	0.03	2.10	9.2	Undetermined	--
• Petro-Lewis Corporation	New	CA	SJ 83-09	07-Aug-84	50.0	0.052	2.60	UD	2-Stage Venturi Scrubbers	95.0%
• International Paper Co	New	TX	14163	02-Apr-84	14.6	0.22	--	UD	Low Sulfur, 0.3% S	--
• Angus Petrotech	New	CA	4132002-004	29-Nov-83	62.5	0.04	2.56	11.2	Sodium Based Scrubber	--
• Port St. Joe	New	FL	FL-075	18-Feb-82	756.0	0.80	604.8	UD	Wet Scrubber- Caustic	95.0%
• Houston Lighting & Power	New	TX	PSD-TX-209	16-Jan-80	185.0	0.50	92.50	405.2	Low Sulfur in No.2 Oil, <0.5% S	--

UD = Undetermined, indicates that information was either unavailable or insufficient to determine.

NA = Not Applicable

Source: BACT/LAER Clearinghouse information on BACT/LAER Information System (BLIS) database at the EPA National Computer Center, RTP, NC.

¹ Limited annual operating hours: 4,200 hrs/yr for Okeelanta Corp.; 400 hrs/yr for Exeter Energy; and 867 hrs/yr for Northeast Utilities.

² Limited to 650 gallons per day.

* Source has been inactive for sometime • = Source firing both natural gas and fuel oil.

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Ranking of Feasible Control Technologies

The top-down BACT approach requires the ranking of the SO₂ emission control alternatives according to their achievable emission levels. The wet FGD processes (i.e., wet lime scrubber and the caustic wet scrubber) has the highest removal efficiency of 95 percent, followed by the spray-dryer scrubber with 92 percent removal efficiency. The use of low-sulfur oil (No. 2 distillate fuel oil with a maximum average sulfur content of 0.3 percent) is considered as the baseline SO₂ emission rate.

Presented in Table 5-2 is the BACT top-down hierarchy of the three technically feasible SO₂ reduction methods (i.e., two wet FGD processes and one dry FGD process), the general ranges of control effectiveness, and the designed control efficiencies applied to the proposed project. In the following detailed analyses, the FGD processes are discussed first, followed by the discussions of the low-sulfur oil firing process and the combined process of both SO₂ reduction techniques.

Analysis of Add-On FGD Process

Technical Issues—The wet lime or limestone scrubber requires a larger auxiliary system or equipment for various processes such as raw materials preparation, solid and liquid separation, other mixing and aeration operation, and waste handling system. Its applicability is generally limited by plant physical limitation because it is a nonregenerable process that generates high solid waste volumes.

The sodium-based wet scrubber is the most effective of the three FGD technologies, particularly for oil firing that produces very low particulate concentration. Overall reliability of sodium-based wet scrubbers applied to industrial boilers is also high. In a well-designed system, sodium-based wet scrubbers do not generally present any outstanding technical problems. However, applicability can be limited by water consumption considerations and waste liquor disposal considerations. Operational limitations are mainly caused by erosion and corrosion problems.

A major technical issue associated with this process is the high water consumption rate, which could be limiting in areas where water is scarce. Other operational issues are the handling of highly alkaline or caustic solutions containing sodium hydroxide and sodium carbonate.

Table 5-2. BACT "Top-down" Hierarchy of SO2 Reduction Methods for SKC's Proposed Package Boilers.

Top-down Ranking	Technology	Range of Control Effectiveness (%)	Control level for BACT Analysis (%)	SO2 Emission Level (lb/MMBtu)	SO2 Annual Emissions (TPY)
First	Wet FGD Scrubbers (Wet Lime Scrubber or Caustic Wet Scrubber)	80-95	95	0.015	32.4
Second	Dry FGD Scrubber (Lime Spray-Dryer Scrubber)	70-92	92	0.024	51.9
Baseline*	Low-Sulfur Oil (No. 2 Fuel Oil), Annual	-	-	0.30	648.5

* Baseline SO2 emissions are calculated from No. 2 fuel oil with a maximum annual average sulfur content of 0.3%. The equivalent heat specific SO2 emission rate is 0.3 lb/MMBtu. Therefore, the estimated annual SO2 emissions are calculated as follows:
 $0.3 \text{ lb SO}_2/\text{MMBtu} \times 164.5 \text{ MMBtu/hr/boiler} \times 3 \text{ boilers} \times 8,760 \text{ hr/yr} \div 2000 \text{ lb/ton} = 648.5 \text{ TPY}$.

The lime spray-dryer FGD process has the least favorable status for application to oil-fired boilers because of the additional particulates control equipment generally required with its application. Since the residual oil contains a negligible amount of ash content, the particulate control would be entirely for the benefit of removing calcium salts produced as SO_2 in the flue gas is absorbed into the alkaline slurry, then reacts to the lime or limestone. Lime spray-dryer scrubbers are more frequently applied to coal-fired utility boilers where particulates are a major component in the flue gas. From an operating standpoint, a narrow operating temperature window has to be strictly adhered to in order to avoid either potential excessive heating or condensation in downstream particulate collection equipment. Its long-term reliability is not sufficiently proven for oil-fired industrial boiler applications. However, its mechanical operation is less complex than the wet lime or sodium-based wet scrubber. Also, water usage is less than for a wet FGD process.

Environmental Effects--The chemicals (Na_2CO_3 and NaOH) used in the sodium-based scrubbing process are highly water soluble making their waste liquor disposal a difficult problem. Disposal options include treating the waste liquor in the existing wastewater treatment facilities or using it for another process feed stream. Other disposal methods such as deep-well injection and off-site disposal by licensed waste processors are cost prohibitive. Safety of plant operating personnel is also a major concern in handling of caustic or alkaline solutions.

Caustic wet scrubber also has the disadvantage of requiring a large water consumption of approximately 48 million gallons per year. This has a significant environmental effect in Florida, which is experiencing declining water supply from the Floridan aquifer levels due to increasing demand in water consumption in the state and lower than average rainfall.

The major environmental issues concerning the use of the lime spray-dryer FGD scrubber, include plant safety procedures for handling particulate solid wastes, water consumption (25 million gallons per year), and the solid waste disposal issue. The primary environmental concerns of the wet lime/limestone system are water usage and the process wastewater and solid waste generated. These waste streams would require proper disposal.

Energy Requirements and Impacts--In general, all of the wet FGD systems will require electricity to drive various mechanical equipment and pumps. The estimated annual electricity

requirements are approximately 1,900 megawatt-hours (MW-hr) for the caustic wet scrubber. The dry scrubber system would also require an additional 1,900 MW-hr of electricity annually for its operation.

Economic Analysis--Of the two wet FGD processes, the caustic wet scrubber will have the lower annualized cost compared to the wet lime scrubber system. Therefore, economic analysis of the caustic wet scrubber was used to represent the costs for the wet FGD system.

The economic analysis for both the wet and dry FGD processes includes five major cost components of the SO₂ emission control systems for SKC's proposed package boilers. These cost components are the total capital investment (TCI), direct operating cost (DOC), indirect operating cost (IOC), capital recovery cost (CRC), and annualized cost (AC). The costing procedure was based on an EPA-developed cost algorithm for determining costs of emission control equipment on fossil-fuel-fired industrial boilers (EPA, 1978). The cost estimates for the caustic wet scrubber and the lime spray dryer scrubber are obtained from two separate subroutines (see Appendix F). The input values, such as boiler flue gas flow rate and SO₂ removal efficiency, account for the sizing of the equipment which in turn affects the equipment cost. The calculated cost values are adjusted to reflect October 1992 costs by multiplying by an escalation factor obtained from the ratio of the Chemical Engineering (CE) plant cost index for October 1992 to that for year 1978.

The cost estimates for the caustic wet scrubber are presented in Table 5-3. The total direct cost was calculated based on the combined boiler exhaust gas flow rate of 160,500 acfm. The calculation basis or specific reference for each cost item is also given in the table. The TCI is \$2,284,398. DOC and IOC are \$1,398,681 and \$260,955, respectively. The wet scrubber CRC is \$371,672. The calculated annualized cost for the caustic wet scrubber system is \$2,031,308.

The cost estimates for the lime spray-dryer scrubber are presented in Table 5-4. The TCI is \$6,275,930. The DOC and IOC are \$859,620 and \$515,589, respectively. The CRC is \$1,021,094. The calculated annualized cost for the lime spray-dryer system is \$2,396,303.

Economic Analysis--Emissions from firing low-sulfur fuel is proposed as the baseline emission level, therefore, the cost of this alternative is not presented.

Table 5-3. Cost Estimates for Caustic Wet Scrubber for SKC's Proposed Package Boilers.

Cost Items	Basis	Wet Scrubber for 0.3 Wt% S
TOTAL CAPITAL INVESTMENT (TCI):		
(1) Direct & Indirect Costs	TDI in NATH Cost Algorithm	\$649,922
(2) Turnkey Cost	$(1.48 \text{ TDI} + 112,800) \times \text{EF}^2$	\$1,934,728
(3) Working Capital	25% of total DOC ²	\$349,670
TCI	(2) + (3)	\$2,284,398
DIRECT OPERATING COSTS (DOC):		
(4) Operating Labor		
Operator	DL in NATH Cost Algorithm ²	\$189,029
Supervisor ¹	15% of operator cost	\$28,354
(5) Maintenance	8% of TDI x EF ²	\$93,603
(6) Replacement Parts ¹		
(include freight & tax)	Equiv. to oper. cost of 1500 hours	\$36,630
(7) Chemicals		
(a) Caustic Soda (NaOH)*	\$400/ton of 50% Caustic Solution	\$726,320
(8) Fuels		
(a) 0.5% S Fuel	Differential Fuel Cost	\$0
(9) Utilities		
(a) Electricity	ELEC in NATH Cost Algorithm ²	\$159,468
(b) Water	WTR in NATH Cost Algorithm ²	\$12,963
(10) Waste Disposal		
(a) Solid Wastes	None	\$0
(b) Liquid Wastes	LW in NATH Cost Algorithm ²	\$152,314
Total DOC		\$1,398,681
INDIRECT OPERATING COSTS (IOC):		
(10) Overhead ¹	60% of oper. labor & maint.	\$169,579
(11) Property Taxes ¹	1% of total capital investment	\$22,844
(12) Insurance ¹	1% of total capital investment	\$22,844
(13) Administration ¹	2% of total capital investment	\$45,688
Total IOC		\$260,955
CAPITAL RECOVERY COST (CRC)	CRF of 0.1627 (10-yr) times TCI	\$371,672
ANNUALIZED COST (AC)	DOC + IOC + CRC	\$2,031,308

* Caustic soda requirement for SO₂ removal is approximately 1.4 ratio by weight of inlet SO₂. Therefore, the cost of caustic to control SO₂ from firing 0.3 Wt.% S fuel oil (or 648.5 TPY) is: $(648.5 \text{ TPY} \times 1.4) \times (2 \text{ for } 50\% \text{ NaOH Solution}) \times \$400/\text{ton of } 50\% \text{ NaOH} = \$726,320$.

¹ Based on catalytic incinerators, from OAQPS Control Cost Manual, 4th Ed. (EPA, 1990b).

² The EPA's NATH cost algorithm is given in EPA, 1978. All final cost values were corrected to reflect the most current 1992 cost values by multiplying with EF. Each DL, SC, ELEC, WTR, SW, and LW module was calculated for 8,760 hours of oil-firing.

EF is the "escalation factor" calculated from the Chemical Engineering Plant Cost Index (1992).

EF = Oct. 1992 CE cost index/1978 CE annual cost index = $393.9/218.8 = 1.80$.

Table 5-4. Cost Estimates for the Lime Spray-Dryer Scrubber for SKC's Proposed Package Boilers.

Cost Items	Basis	Spray Dryer Scrubber for 0.3% S Fuel Oil
TOTAL CAPITAL INVESTMENT (TCI):		
(1) Direct & Indirect Costs	TDI in DS Cost Algorithm	\$2,104,202
(2) Turnkey Cost	(1.60 TDI) x EF ²	\$6,061,025
(3) Working Capital	25% of total DOC ²	\$214,905
TCI	(2) + (3)	\$6,275,930
DIRECT OPERATING COSTS (DOC):		
(4) Operating Labor		
Operator	DL in DS Cost Algorithm ²	\$189,029
Supervisor ¹	15% of operator cost	\$28,354
(5) Maintenance	8% of TDI x EF ²	\$223,537
(6) Replacement Parts ¹		
(include freight & tax)	Equiv. to oper. cost of 1500 hours	\$36,630
(7) Chemicals		
(a) Lime Ca(OH) ₂ [*]	\$120 / ton of Lime	\$112,839
(8) Fuels		
(a) 0.5% S Fuel	Differential Fuel Cost	\$0
(9) Utilities		
(a) Electricity	ELEC in DS Cost Algorithm ²	\$158,919
(b) Water	WTR in DS Cost Algorithm ²	\$6,881
(10) Waste Disposal		
(a) Solid Wastes	SW in DS Cost Algorithm ²	\$103,432
(b) Liquid Wastes	None	\$0
Total DOC		\$859,620
INDIRECT OPERATING COSTS (IOC):		
(10) Overhead ¹	60% of oper. labor & maint.	\$264,552
(11) Property Taxes ¹	1% of total capital investment	\$62,759
(12) Insurance ¹	1% of total capital investment	\$62,759
(13) Administration ¹	2% of total capital investment	\$125,519
Total IOC		\$515,589
CAPITAL RECOVERY COST (CRC)	CRF of 0.1627 (10-yr) times TCI	\$1,021,094
ANNUALIZED COST (AC)	DOC + IOC + CRC	\$2,396,303

* Lime requirement for SO₂ removal is approximately 1.45 ratio by weight of inlet SO₂. Therefore, the cost of lime to control SO₂ from firing 0.3 Wt.% S fuel oil (or 648.5 TPY) is: 648.5 TPY x 1.45 x \$120/ton of lime = \$112,839.

¹ Based on catalytic incinerators (EPA, 1990b).

² The EPA's DS cost algorithm is given in EPA, 1978. All final cost values were corrected to reflect the most current 1992 cost values by multiplying with EF. Each DL, SC, ELEC, WTR, SW, and LW module was calculated for 8,760 hours of oil-firing.

EF is the "escalation factor" calculated from the Chemical Engineering Plant Cost Index (1992).

EF = Oct. 1992 CE cost index/1978 CE annual cost index = 393.9/218.8 = 1.80.

5.1.3 SO₂ BACT SUMMARY AND CONCLUSION

The BACT analysis for SO₂ control has identified two feasible control alternatives: using either a wet scrubber system for a 95 percent control efficiency or using a dry scrubber system for a 92 percent control efficiency. This section will consider the overall environmental, energy, and economic impacts of each alternative and eliminate those with adverse impacts. The most effective control alternative not eliminated will be selected as BACT.

Comparison of Technical Issues

The option of firing low-sulfur oil is the simplest option because there is no additional operating procedure requirements, nor any additional equipment is required. On the other hand, the addition of any wet or dry FGD process requires that additional operating and maintenance will be required for the boiler in addition to the labor requirements for the control device and its auxiliary processes, such as raw materials or chemicals preparation, separation processes, and waste handling processes. The wet SO₂ control methods using sodium-based chemicals are also subjected to corrosion and erosion problems.

The solids and liquor wastes handling aspect is the main technical reason for eliminating alternatives involving the use of any FGD process. The option of installing a lime spray-dryer scrubber also presents difficulties because of the requirement for a particulate control system. The plant is not equipped to handle the lime solid waste. Thus, using low-sulfur fuel to reduce SO₂ emissions is the best control alternative since it poses the fewest technical concerns.

Comparison of Environmental Effects

The add-on FGD processes create additional environmental concerns because reagents are required and byproducts are produced in each process. Of all the FGD processes, the most adverse environmental impacts could be from the application of the caustic solution scrubbing process, which produces a soluble alkaline waste liquor. This waste liquor would have to be treated prior to disposal. Therefore, the option of using this process is the least favorable in terms of environmental effects.

Other lime scrubbing processes (i.e., wet lime scrubber and lime spray-dry scrubber) produce solid/slurry waste and particulate solids, respectively, that require additional processing prior to disposal in landfills. The add-on FGD option has an added requirement for water use between

25 million and 48 million gallons of water per year. This is a negative environmental impact in Duval County where water use will be further restricted due to increased demand and reduced supply.

Using low-sulfur fuel oil and natural gas will not impose any additional impacts on the surrounding environment because there will be no by-product produced. Thus, firing 0.5-percent-sulfur fuel and natural gas is considered BACT in view of the least environmental effects.

Comparison of Energy Impacts

All of the FGD processes require additional electricity to operate various pumps and mechanical mixers. For example, it requires about 1,900 MW-hr annually to operate the caustic wet scrubbing system. A similar amount of electricity is required for the lime spray-dryer scrubber. The best alternative will be the low-sulfur oil-firing in view of energy impacts because it does not require any additional energy.

Comparison of Economic Analysis

The economic analysis is based on the cost effectiveness of the control method. The economic impact is presented in terms of both total and incremental costs in Table 5-5. Comparing the total cost effectiveness of both wet and dry FGD SO₂ control alternatives: the caustic wet scrubber has a total cost effectiveness value of \$3,297 per ton of SO₂ removed; the lime spray-dryer scrubber has a total cost effectiveness of \$4,107 per ton of SO₂ removed.

As shown in Table 5-5, the caustic wet scrubber option results in greater control at a lower cost than the lime spray dryer scrubber. The incremental cost effectiveness of the caustic wet scrubber option compared to the base case of low sulfur oil is \$3,297/ton of SO₂ controlled. The incremental cost effectiveness of the lime spray dryer option compared to the base case of low sulfur oil is \$4,017/ton of SO₂ controlled.

Conclusion

The top-down BACT analysis in terms of environmental impacts, energy impacts, and economic impacts for SKC's proposed package boilers is summarized in Table 5-5. Comparative analyses as discussed above have indicated that using either wet or dry FGD process to further reduce the SO₂ emissions from the proposed project would increase costs by \$3,300 per ton of SO₂ removed or more. This incremental cost is far above the \$2,000 per ton of SO₂ removed that is currently

Table 5-5. Summary Results of the Top-Down BACT Analysis for SO2 for SKC's Proposed Package Boilers.

Control Alternative				Environmental Impacts		Energy Impacts	Economic Impacts			
	Total SO2 Emissions (TPY)	Total Emission Reduction (TPY)	Incremental Emission Reduction (TPY)	Potential toxic air impact?	Potential adverse enviromental impacts?	Additional Energy Requirements Electricity (MW-hr/yr)	Total Annualized Cost (\$/yr)	Incremental Annualized Cost * (\$/yr)	Total Cost Effectiveness (\$/ton)	Incremental Cost Effectiveness (\$/ton)
Caustic Wet Scrubber	32.4	616.0	19.5	No	Yes	1,900	\$2,031,308	\$2,031,308 *	\$3,297	\$3,297 *
Lime Spray-Dryer Scrubber	51.9	596.6	596.6	No	Yes	1,900	\$2,396,303	\$2,396,303 *	\$4,017	\$4,017 *
Baseline (Low-Sulfur Oil, Uncontrolled)	648.5	--	--	--	--	--	---	---	---	---

* Reflects incremental cost compared to baseline case.

being considered by FDER as a reasonable cost for controlling SO₂ emissions. Therefore, firing No. 2 fuel with a maximum 0.5 percent sulfur content and average 0.3 percent sulfur, and natural gas is considered as BACT for SKC's proposed package boilers. This determination is also consistent with two 1989 BACT determinations for Wausau Paper Mills Company and Wisconsin Tissue Mills (see Table 5-1) where dual-fuel firing was permitted, and Okeelanta Corporation's 1991 BACT determination where low-sulfur oil was permitted. For Okeelanta Corporation's oil-fired boiler permit (PSD-FL-169) issued in 1991, FDER determined that firing fuel oil with a maximum sulfur content of 0.5 percent and an average sulfur content of 0.3 percent was BACT for SO₂.

Furthermore, SKC's proposed project has a low SO₂ impact based on firing 0.5 percent sulfur fuel year around. The modeling results show a low SO₂ impact of 6.4 µg/m³, annual average, to the surrounding rural area. At an average 0.3 percent sulfur, this impact decreases to 3.8 µg/m³.

Based on the above analysis, firing of No. 2 distillate oil of maximum 0.5-percent sulfur and having an annual average sulfur content of 0.3 percent is concluded to be BACT for SO₂ emission control for SKC's proposed package boilers.

5.1.4 BACT DETERMINATION FOR BERYLLIUM

The presence of trace elements in fuel oil can result in emissions of a small amount of Be and other trace elements to the atmosphere. The high temperature in the boiler furnace vaporizes some of these elements. Subsequently, as the temperature of the flue gas drops, some of these elements condense into fine particulate matter or nucleate into new particles. Most of these particulates are then collected in the particulate collection system, if present.

There are no applicable NSPS for Be emissions from industrial boilers. Be emissions from SKC's proposed package boilers result from combustion of distillate oil, based on the emission factor of 2.5 lb/10¹² Btu. There are no specific technologies currently available for further reduction of Be other than collection of fine particulate matter on which Be is absorbed or formed. For natural-gas-firing in the power boiler, Be emissions are not expected; Be emissions from firing of 0.5-percent sulfur fuel oil are very low. The overall low potential emissions do not justify add-on control technology for Be. Therefore, the uncontrolled emission level of Be estimated for SKC's proposed package boilers is concluded to be BACT.

6.0 AIR QUALITY MODELING APPROACH

6.1 GENERAL MODELING APPROACH

6.1.1 SIGNIFICANT IMPACT ANALYSIS

The general modeling approach followed EPA and FDER modeling guidelines for determining compliance with AAQS and PSD increments. For all criteria pollutants that are emitted in excess of the PSD significant emission rate due to a proposed project, a significant impact analysis is performed to determine whether the emission increase(s) alone will result in predicted impacts in excess of the EPA/FDER significant impact levels. If the project's impacts are above the significant impact levels, then a more detailed modeling analysis is performed. Current FDER policies stipulate that the highest annual average and highest short-term (i.e., 24 hours or less) concentrations are to be compared to the applicable significant impact levels. If screening analysis indicates that maximum predicted concentrations are within 75 percent of the significant impact levels, modeling refinements are performed.

6.1.2 AAQS/PSD MODELING ANALYSIS

For all pollutants that have a significant impact, a full impact analysis is required. In general, when 5 years of meteorological data are used, the highest annual and the highest, second-highest (HSH) short-term concentrations are to be compared to the applicable AAQS and allowable PSD increments. The HSH is calculated for a receptor field by:

1. Eliminating the highest concentration predicted at each receptor,
2. Identifying the second-highest concentration at each receptor, and
3. Selecting the highest concentration among these second-highest concentrations.

This approach is consistent with air quality standards and allowable PSD increments, which permit a short-term average concentration to be exceeded once per year at each receptor.

To develop the maximum short-term concentrations for the proposed project, the modeling approach was divided into screening and refined phases to reduce the computation time required to perform the modeling analysis. For this study, the only difference between the two phases is the density of the receptor grid spacing employed when predicting concentrations. Concentrations are predicted for the screening phase using a coarse receptor grid and a 5-year meteorological data record.

Refinements of the maximum predicted concentrations are typically performed for the receptors of the screening receptor grid at which the highest and/or HSH concentrations occurred over the 5-year period. Generally, if the maximum concentration from other years in the screening analysis are within 10 percent of the overall maximum concentration, those other concentrations are refined as well. Typically, if the highest and HSH concentrations are in different locations, concentrations in both areas are refined.

Modeling refinements are performed for short-term averaging times by using a denser receptor grid, centered on the screening receptor to be refined. The angular spacing between radials is 2 degrees and the radial distance interval between receptors is 100 m. Annual modeling refinements employ an angular spacing between radials of 2 degrees and a distance interval from 100 to 300 m, depending on the concentration gradient in the vicinity of the screening receptor to be refined. If the maximum screening concentration is located on the plant property boundary, additional plant boundary receptors are input, spaced at a 2 degree angular interval and centered on the screening receptor. The domain of the refinement grid typically extends to all adjacent screening receptors. The air dispersion model is then executed with the refined grid for the entire year of meteorology during which the screening concentration occurred. This approach is used to ensure that a valid HSH concentration is obtained. A more detailed description of the model used, along with the emission inventory, meteorological data, and screening receptor grids used in the analysis, are presented in the following sections.

6.2 MODEL SELECTION

The selection of an appropriate air dispersion model was based on the model's ability to simulate impacts in areas surrounding the SKC site. Within 50 km of the site, the terrain can be described as simple, i.e., flat to gently rolling. As defined in EPA modeling guidelines, simple terrain is considered to be an area where the terrain features are all lower in elevation than the top of the stack(s) under evaluation. Therefore, a simple terrain model was selected to predict maximum ground-level concentrations.

The Industrial Source Complex Short-term (ISCST2, Version 92062) dispersion model (EPA, 1992b) was used to evaluate the pollutant emissions from the proposed facility and other existing major facilities. This model is contained in EPA's User's Network for Applied Modeling of Air Pollution (UNAMAP), Version 6 (EPA, 1988b). The ISCST2 model is applicable to sources located in either flat or rolling terrain where terrain heights do not exceed stack heights. The

ISCST2 model is designed to calculate hourly concentrations based on hourly meteorological parameters (i.e., wind direction, wind speed, atmospheric stability, ambient temperature, and mixing heights). The hourly concentrations are processed into non-overlapping, short-term and annual averaging periods. For example, a 24-hour average concentration is based on 24 1-hour averages calculated from midnight to midnight of each day. For each short-term averaging period selected, the highest and second-highest average concentrations are calculated for each receptor. As an option, a table of the 50 highest concentrations over the entire field of receptors can be produced.

Major features of the ISCST2 model are presented in Table 6-1. The ISCST2 model has both rural and urban mode options which affect the wind speed profile exponent law, dispersion rates, and mixing-height formulations used in calculating ground level concentrations. The criteria used to determine when the rural or urban mode is appropriate are based on land use near the source's surroundings (Auer, 1978). If the land use is classified as heavy industrial, light-moderate industrial, commercial, or compact residential for more than 50 percent of the area within a 3-km radius circle centered on the proposed source, the urban option should be selected. Otherwise, the rural option is more appropriate.

In this analysis, the EPA regulatory default options were used to predict all maximum impacts. The regulatory default options include:

1. Final plume rise at all receptor locations,
2. Stack-tip downwash,
3. Buoyancy-induced dispersion,
4. Default wind speed profile coefficients for rural or urban option,
5. Default vertical potential temperature gradients,
6. Calm wind processing, and
7. Reducing calculated SO₂ concentrations in urban areas by using a decay half-life of 4 hours.

6.3 METEOROLOGICAL DATA

Meteorological data used in the ISCST2 model to determine air quality impacts consisted of a concurrent 5-year period of hourly surface weather observations and twice-daily upper air soundings from the National Weather Service (NWS) stations at Jacksonville International Airport and Waycross, Georgia, respectively. The 5-year period of meteorological data was from 1983

Table 6-1. Major Features of the ISCST2 Model

-
- Polar or Cartesian coordinate systems for receptor locations
 - Rural or one of three urban options that affect wind speed profile exponent, dispersion rates, and mixing height calculations
 - Plume rise as a result of momentum and buoyancy as a function of downwind distance for stack emissions (Briggs, 1969, 1971, 1972, and 1975)
 - Procedures suggested by Huber and Snyder (1976); Huber (1977); Schulmann and Hanna (1986); and Schulmann and Scire (1980) for evaluating building wake effects
 - Direction-specific building heights and projected widths for all sources for which downwash is considered.
 - Procedures suggested by Briggs (1974) for evaluating stack-tip downwash
 - Separation of multiple-point sources
 - Consideration of the effects of gravitational settling and dry deposition on ambient particulate concentrations
 - Capability of simulating point, line, volume, and area sources
 - Capability to calculate dry deposition
 - Variation of wind speed with height (wind speed-profile exponent law)
 - Concentration estimates for 1-hour to annual average
 - Terrain-adjustment procedures for elevated terrain, including a terrain truncation algorithm
 - Receptors located above local terrain (i.e., "flagpole" receptors)
 - 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
 - Wind speeds less than 1 m/s are set to 1 m/s.

Source: EPA, 1992b.

through 1987. The NWS station at Jacksonville International Airport, located approximately 12 km to the northwest of the SKC site, was selected for use in the study because it is the closest primary weather station to the study area which is representative of the plant site. The surface observations included wind direction, wind speed, temperature, cloud cover, and cloud ceiling.

The wind speed, cloud cover, and cloud ceiling values were used in the ISCST2 meteorological preprocessor program to determine atmospheric stability using the Turner stability scheme. Based on the temperature measurements at morning and afternoon, mixing heights were calculated with the radiosonde data using the Holzworth approach (1972). Hourly mixing heights were derived from the morning and afternoon mixing heights using the interpolation method developed by EPA (Holzworth, 1972). The hourly surface data and mixing heights were used to develop a sequential series of hourly meteorological data (i.e., wind direction, wind speed, temperature, stability, and mixing heights). Because the observed hourly wind directions were classified into one of 36 10-degree sectors, the wind directions were randomized within each sector to account for the expected variability in air flow. These calculations were performed by using the EPA RAMMET meteorological preprocessor program.

6.4 EMISSION INVENTORY

6.4.1 SKC FACILITY

Stack and operating parameters and emission rates for the proposed SKC package boilers are presented in Section 2.0.

Two types of "baseline" emission inventories for the SKC facility area are required for the modeling analysis. The first is the inventory of other sources at SKC which provide creditable contemporaneous emission decreases. This inventory is needed to determine if the proposed project will have a significant air quality impact. The contemporaneous decreases include the shutdown of the existing recovery boilers, smelt tanks and lime kilns at SKC. The inventory for these sources, reflecting current actual operation, is shown in Table 6-2. These sources would normally be modeled as negative emission sources in the same model run with the proposed sources, to determine the "net" impact. However, since the SO₂ baseline emissions for these sources are small, only the proposed package boilers were modeled to determine the significant impact area for SO₂.

Table 6-2. Stack Parameters Associated With Creditable Contemporaneous Emission Reductions at SKC

ISCST2 Source Identification	Source Description	Coordinates		Stack Data (m)		Operating Data		SO ₂ Emissions for Applicability	
		Relative To (m)		Height	Diameter	Temperature (°K)	Velocity (m/sec)	(lb/hr)	(g/sec)
		X	Y						
SKCRB1	RB#1	-128	92	38.4	2.59	341.5	15.97	0.9	0.11
SKCRB2	RB#2	-139	84	38.4	2.74	345.4	15.61	0.7	0.09
SKCRB3	RB#3	-152	73	38.4	2.74	343.7	14.60	0.2	0.03
SKCSDT1	SDT#1	-87	44	36.6	1.07	344.3	3.96	0.71	0.09
SKCSDT2	SDT#2	-95	33	37.8	1.22	344.3	4.27	0.71	0.09
SKCSDT3	SDT#3	-113	19	37.8	1.22	344.3	4.27	0.71	0.09
SKCLK1	LK#1	-202	111	21.0	1.77	343.2	3.11	1.7	0.21
SKCLK2	LK#2	-212	110	22.9	1.42	335.9	6.52	1.7	0.21
SKCLK3	LK#3	-224	125	22.9	1.12	335.9	8.17	1.7	0.21

Note: g/sec = gram per second.
K = Kelvin.
m/sec = meter per second.
SKC = Seminole Kraft Corporation.
SO₂ = sulfur dioxide.

The second baseline inventory is the PSD baseline inventory for SO₂ to determine PSD increment consumption. The PSD minor baseline date for SO₂ for the entire State of Florida is December, 1977. Review of plant operating records has indicated that no construction related emission changes occurred at the mill between January 6, 1975 (the major source baseline date) and December, 1977. Therefore, operating conditions for the period 1976 to 1977 were used to represent the baseline conditions.

The PSD baseline SO₂ emissions and stack data for SKC are presented in Tables 6-3 and 6-4, respectively. SO₂ baseline emissions for the SKC facility were developed based on AP-42 factors and data from the 1976 annual operating report submitted by the St. Regis Paper Company (now Seminole Kraft) to the City of Jacksonville and FDER. Specifically, emissions for the power and bark boilers were determined through fuel use data supplied in the annual operating reports and AP-42 factors for industrial boilers. Emissions for the recovery boilers, lime kilns, and smelt dissolving tanks were determined based on the amount of pulp produced at the plant in 1976 and AP-42 factors for kraft paper mills. Baseline stack data were derived based on current stack and operating data, and stack test data from 1974 and 1975.

6.4.2 OTHER AIR EMISSION SOURCES

The only criteria pollutant subject to PSD review is SO₂. The proposed project results in a significant ambient impact for SO₂. Therefore, a detailed SO₂ impact analysis is required, including other SO₂ sources. An inventory of all SO₂ facilities within 50 km of the SKC site was developed from the AIR 10 reports supplied to KBN by FDER. This inventory, presented in Table 6-5, includes all SO₂ facilities considered in the modeling analysis. Gilman Paper Company in St. Marys County, Georgia is the only non-Florida source that was included on this list.

FDER has recommended a technique for eliminating facilities from the modeling analyses if the facility's emissions do not meet an emission criteria. The technique is the "Screening Threshold" method, developed by the North Carolina Department of Natural Resources and Community Development, and approved by EPA. The method is designed to objectively eliminate from the emission inventory those sources which are not likely to have a significant interaction with the source undergoing evaluation. In general, facilities that should be considered in the modeling analyses are those with emissions greater than Q (in TPY) which is calculated by the following criteria:

Table 6-3. PSD Baseline (1976) SO₂ Emission Data for the Seminole Kraft^a Facility in Jacksonville, Florida

Unit Description	Process Amount (tons/yr)	Process Type	Fuel Usage	Fuel Type	% Sulfur in Fuel Oil	Hours of Operation	SO ₂ Emissions			
							Annual (tons/yr)	Short Term (lb/hr) ^b	Annual (g/s)	Short Term (g/s)
Bark Boiler No. 1	N/A	N/A	1,394,774 121,520	Fuel Oil (gal) Bark (tons)	2.27	8,712	272.8	458.7 ^c	7.85	57.80
Bark Boiler No. 2	N/A	N/A	1,696,627 112,480	Fuel Oil (gal) Bark (tons)	2.27	8,064	324.8	458.7 ^c	9.34	57.80
Power Boiler No. 1	N/A	N/A	7,935,037	Fuel Oil (gal)	2.27	8,472	1,414.0	333.8	40.68	42.06
Power Boiler No. 2	N/A	N/A	11,610,539	Fuel Oil (gal)	2.27	8,472	2,069.0	488.4	59.52	61.54
Power Boiler No. 3	N/A	N/A	11,569,935	Fuel Oil (gal)	2.27	8,496	2,062.0	485.4	59.32	61.16
Recovery Boiler No. 1	179,906	Black Liquor	54,439	Fuel Oil (gal)	2.27	8,304	425.6	102.5	12.24	12.92
Recovery Boiler No. 2	230,686	Black Liquor	51,100	Fuel Oil (gal)	2.27	8,328	545.8	131.1	15.70	16.52
Recovery Boiler No. 3	234,000	Black Liquor	76,520	Fuel Oil (gal)	2.27	8,448	553.6	131.1	15.92	16.51
Smelt Dissolving Tank No. 1	94,275	Smelt	N/A	N/A	N/A	8,304	12.2	2.9	0.35	0.37
Smelt Dissolving Tank No. 2	120,914	Smelt	N/A	N/A	N/A	8,328	15.6	3.7	0.45	0.47
Smelt Dissolving Tank No. 3	122,657	Smelt	N/A	N/A	N/A	8,448	15.8	3.7	0.46	0.47
Lime Kiln No. 1	55,527	CaCO ₃	1,817,632	Fuel Oil (gal)	2.27	5,976	19.3	6.5	0.55	0.81
Lime Kiln No. 2	67,123	CaCO ₃	2,197,217	Fuel Oil (gal)	2.27	7,224	23.3	6.5	0.67	0.81
Lime Kiln No. 3	65,562	CaCO ₃	2,146,119	Fuel Oil (gal)	2.27	7,056	22.8	6.5	0.66	0.81
TOTALS							7,777	2,619	224	330

Note: Emissions based on a 1976 annual pulp production rate of 435,741 tons.

CaCO₃ = calcium carbonate.

gal = gallon.

g/s = gram per second.

lb/hr = pound per hour.

N/A = not applicable.

% = percent.

PSD = prevention of significant deterioration.

tons/yr = tons per year.

^a Formerly St. Regis Paper Company

^b Based on total annual hours of operation and annual emissions, unless otherwise indicated.

^c Maximum short-term emissions for Bark Boilers 1 and 2 are based on 100-percent fuel oil usage at 1,287 gallons/hour.

Table 6-4. PSD Baseline (1976) Stack and Operating Data for the Seminole Kraft^a Facility in Jacksonville, Florida

Unit Description	Stack Height		Stack Diameter		Velocity		Temperature		Basis
	(ft)	(m)	(ft)	(m)	(ft/s)	(m/s)	(deg F)	(K)	
Bark Boiler No. 1	136	41.45	8.08	2.46	42.7	13.01	138	332	Current stack data
Bark Boiler No. 2	136	41.45	8.08	2.46	42.7	13.01	138	332	Current stack data
Power Boiler No. 1	106	32.31	6.00	1.83	51.9	15.82	350	450	Current stack data and an average of 1974/1975 stack test data
Power Boiler No. 2	106	32.31	7.00	2.13	60.2	18.35	417	487	Current stack data and 1975 stack test data
Power Boiler No. 3	106	32.31	7.00	2.13	56.5	17.22	372	462	Current stack data and 1975 stack test data
Recovery Boiler No. 1	126	38.40	8.50	2.59	51.4	15.67	161	345	Current stack data and 1975 stack test data
Recovery Boiler No. 2	126	38.40	9.00	2.74	60.4	18.41	153	340	Current stack data and 1975 stack test data
Recovery Boiler No. 3	126	38.40	9.00	2.74	42.0	12.80	150	339	Current stack data and 1974 stack test data
Smelt Dissolving Tank No. 1	105	32.00	3.50	1.07	23.0	7.01	170	350	1974 stack and operating data
Smelt Dissolving Tank No. 2	108	32.92	4.00	1.22	24.9	7.59	170	350	1974 stack and operating data
Smelt Dissolving Tank No. 3	108	32.92	4.00	1.22	24.9	7.59	170	350	1974 stack and operating data
Lime Kiln No. 1	69	21.03	5.80	1.77	17.0	5.19	160	344	Current stack data and 1974 stack test data
Lime Kiln No. 2	75	22.86	4.67	1.42	33.8	10.30	165	347	Current stack data and 1974 stack test data
Lime Kiln No. 3	75	22.86	3.67	1.12	45.0	13.72	139	333	Current stack data and 1974 stack test data

Note: ft = feet.
PSD = prevention of significant deterioration.
m = meter.
ft/s = feet per second.
deg F = degrees Fahrenheit.
K = Kelvin.

^a Formerly St. Regis Paper Company

Source: Fuel data for St. Regis Paper, 1974.
Stack test data from 1974, 1975 and 1977.
Current stack and operating data.

Table 6-5. SO₂ Facilities Other Than SKC Considered in the Modeling Analysis (Page 1 of 2)

APIS#	Source Name	UTM (km)		Location Relative To Seminole Kraft (km)		Distance (km)	Direction (deg)	Q, Emission Threshold (Dist-SIA X 20)	SO ₂ Emissions (TPY)	Included in Modeling Analysis
		East	North	X	Y					
31DVL160???	AES Cedar Bay	441.7	3365.6	-0.1	0	0.1	270	SIA	4,058	YES
31DVL160025	Atlantic Coast Asphalt	440.0	3364.1	-1.8	-1.5	2.3	230	SIA	73	NO
31DVL160069	Georgia Pacific	440.1	3368.3	-1.7	2.7	3.2	328	SIA	207	YES
31DVL160113	Sears Catalog Cntr	438.2	3365.9	-3.6	0.3	3.6	275	SIA	2	NO
31DVL160006	Anheuser Busch	437.9	3366.8	-3.9	1.2	4.1	287	SIA	2,848	YES
31DVL160045	JEA-Northside	446.9	3364.8	5.1	-0.8	5.1	97	SIA	96,407	YES
31JAX160001	JEA -SJPP	446.9	3366.3	5.1	0.7	5.1	82	SIA	40,904	YES
31DVL160072	U.S. Gypsum	438.9	3361.2	-2.9	-4.4	5.3	213	SIA	1,201	YES
31DVL160202	Celotex	446.4	3362.6	4.6	-3	5.5	123	SIA	740	YES
31DVL160028	Steuart Petrol. Comp. ^a	438.5	3360.5	-3.3	-5.1	6.1	213	SIA	63	NO
31DVL160228	Oxco Fuel Company ^d	438.5	3360.5	-3.3	-5.1	6.1	213	SIA	0	NO
31DVL160148	Occidental Chemical	439.3	3359.8	-2.5	-5.8	6.3	203	SIA	434	YES
31DVL160003	Jefferson Smurfit	439.9	3359.3	-1.9	-6.3	6.6	197	SIA	2,187	YES
31DVL160047	JEA-Kennedy	440.0	3359.2	-1.8	-6.4	6.7	195	SIA	18,820	YES
31DVL160188	Coastal Fuels Marketing	439.7	3358.7	-2.1	-6.9	7.2	197	SIA	64	NO
31DVL160039	SCM Glidco Organics	435.6	3360.7	-6.2	-4.9	7.9	232	SIA	2,409	YES
31DVL160280	B.F. Goodrich	450.0	3365.5	8.2	-0.1	8.2	91	SIA	58	NO
31DVL160146	J.W. Swisher	437.9	3357.9	-3.9	-7.7	8.6	207	SIA	292	YES
31DVL160142	Jax Univ. Hospital	436.5	3357.2	-5.3	-8.4	9.9	212	SIA	1	NO
31DVL160184	Rinker Materials	439.5	3355.6	-2.3	-10	10.3	193	SIA	5	NO
31DVL160246	Environmental Tech.	439.4	3355.0	-2.4	-10.6	10.9	193	SIA	10	NO
31DVL160015	Cathedral Towers	437.1	3355.4	-4.7	-10.2	11.2	205	SIA	0.3	NO
31DVL160154	Jax Shipyards	438.5	3354.5	-3.3	-11.1	11.6	197	SIA	5	NO
31DVL160198	E S Metals ^e	431.8	3358.3	-10	-7.3	12.4	234	SIA	-838	YES
31DVL160046	JEA-Southside	437.7	3353.9	-4.1	-11.7	12.5	200	SIA	17,543	YES
31DVL160155	Gulf Life Insurance	436.2	3354.1	-5.6	-11.5	12.8	206	SIA	103	YES
31DVL160199	National Linen Service	434.9	3354.8	-6.9	-10.8	12.8	213	SIA	50	NO
31DVL160005	Anchor Glass	431.5	3357.5	-10.3	-8.1	13.1	232	SIA	644	YES
31DVL160074	Atlantic Coast Asphalt	429.5	3359.7	-12.3	-5.9	13.6	244	SIA	73	NO
31DVL160042	Duval Asphalt Products ^b	428.7	3361.4	-13.1	-4.2	13.8	252	SIA	1,270	YES
31DVL160104	Memorial Hospital	442.2	3351.0	0.4	-14.6	14.6	178	SIA	1	NO

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Table 6-5. SO₂ Facilities Other Than SKC Considered in the Modeling Analysis (Page 2 of 2)

APIS#	Source Name	UTM (km)		Location Relative To Seminole Kraft (km)		Distance (km)	Direction (deg)	Q, Emission Threshold (Dist-SIA X 20)	SO ₂ Emissions (TPY)	Included in Modeling Analysis
		East	North	X	Y					
31DVL160068	St. Vincents Med. Cntr.	433.9	3353.0	-7.9	-12.6	14.9	212	SIA	1	NO
31DVL160010	Baptist Medical Ctr	435.4	3352.0	-6.4	-13.6	15.0	205	0.6	483	YES
31DVL160004	Maxwell House	439.7	3350.0	-2.1	-15.6	15.7	188	14.8	399	YES
31DVL160097	Anheuser Busch	428.4	3356.4	-13.4	-9.2	16.3	236	25.1	2	NO
31DVL160071	Union Camp	427.6	3357.3	-14.2	-8.3	16.4	240	29.0	615	YES
31DVL160232	Duval Asphalt Products	427.0	3357.7	-14.8	-7.9	16.8	242	35.5	22	NO
31DVL160213	U.S. Naval Station - Mayport	460.4	3362.8	18.6	-2.8	18.8	99	76.2	917	YES
31DVL160235	University of N. Florida	451.2	3348.5	9.4	-17.1	19.5	151	90.3	45	NO
31DVL160282	Sloan Construction	439.6	3346.0	-2.2	-19.6	19.7	186	94.5	37	NO
31DVL160043	Duval Asphalt Products	443.2	3344.0	1.4	-21.6	21.6	176	132.9	384	YES
31DVL160215	Naval Air Station-Roosevelt	434.2	3342.8	-7.6	-22.8	24.0	198	180.7	1	NO
31JAX450003	Container Corp	456.2	3394.2	14.4	28.6	32.0	27	198.8	16,032	YES
31DVL160026	Atlantic Coast Asphalt	445.3	3339.6	3.5	-26	26.2	172	224.7	73	NO
31JAX450004	ITT Rayonier	454.7	3392.2	12.9	26.6	29.6	26	291.3	6,884	YES
31DVL160270	Columbia Paving	448.2	3336.6	6.4	-29	29.7	168	294.0	46	NO
31DVL160218	Naval Air Station - Cecil	415.2	3344.5	-26.6	-21.1	34.0	232	379.0	80	NO
31DVL160157	Florida Steel - Baldwin	405.9	3350.2	-35.9	-15.4	39.1	247	481.3	84	NO
	Gilman Paper	448.2	3401.3	6.4	35.7	36.3	10	425.4	7,271	YES

Note: SIA = The facility is within the significant impact area and therefore is included in the modeling analysis unless emissions are less than 100 TPY.
 Dist-SIA = The distance from Seminole Kraft to the given facility minus the significant impact distance of 15 km.
 UTM = Coordinates of SKC Facility are E 441.8 and N 3365.6.

- ^a Formerly Eastern Seaboard.
- ^b Formerly Wiley Jackson Company.
- ^c Baseline source that shut down. All emissions are increment expanding.
- ^d PSD source that shut down in 1989.

$$Q = 20 \times D$$

where D is:

1. The distance (km) from SKC to the source undergoing evaluation for short-term analysis, or
2. The distance (km) from SKC's significant impact area (SIA) (15 km for SO₂) to the source undergoing evaluation for long-term analysis.

For this analysis, the long-term criteria were used since fewer facilities would be eliminated than with the short-term criteria and would thus result in a more conservative approach. Facilities that were within SKC's SIA (15 km) were eliminated from the analysis based on their total emissions being less than 100 TPY. Beyond the SKC SIA, facilities were excluded only by the North Carolina technique's long-term criteria.

A summary of the total SO₂ emissions included in the modeling analyses is as follows:

Within SIA:

Total TPY considered: 189,636

Total TPY included in modeling: 189,229

Percent of total included: 99.79

Total Inventory:

Total TPY considered: 223,010

Total TPY included in modeling: 222,214

Percent of total included: 99.64

A summary of all source data used in the modeling analysis, including which sources are designated as PSD (increment consuming or expanding) sources, is included in Appendix C. All stack, SO₂ emissions, and operating information were obtained from the Air Pollutant Information System (APIS) for the year 1991. The stack, emission, and operation data presented for Container Corporation and Gilman Paper were available from prior PSD applications and modeling analyses (KBN, 1990). Some corrections to the Anheuser Busch APIS source inventory were provided by Anheuser Busch (Pusch, 1992). Both current and baseline source data for Jefferson Smurfit were obtained from operating permits and a previous PSD permit application. Data for ES Metals were obtained from a prior PSD application submitted by Jefferson Smurfit Corporation.

For the AAQS analysis, sources within one facility were sometimes combined if their stack heights were the same and the sources had similar operating parameters. Some small sources were combined with larger sources (emissions were simply added together).

Two modeling SO₂ emission inventories were prepared for the modeling effort: one that includes all current SO₂ source emissions to be used for the total source impact assessment (AAQS analysis) and a second containing only PSD increment expanding and consuming sources, to be used for the PSD increment consumption analysis (for both PSD Class I and II).

6.5 RECEPTOR LOCATIONS

6.5.1 SIGNIFICANT IMPACT ANALYSIS

To determine the SO₂ significant impact area, concentrations were predicted for 288 receptors located in a radial grid centered on the proposed package boilers' stack. Receptors were located in "rings" with 36 receptors per ring, space at 10° intervals, and at distances of 5, 10, 15, 20, 25, 30, 40, and 50 km.

6.5.2 AAQS AND PSD CLASS II IMPACT ASSESSMENTS

To cover the spatial extent of the proposed project's significant impact area (15 km), both near-field and far-field receptor grids were used for the AAQS and PSD Class II screening analyses. The near-field screening grid included both regular grid and discrete receptors. The near-field regular grid receptors were located as rings at distances of 1.5, 2.0, 3.0, 4.0, and 5.0 km. Discrete receptors included 36 receptors located on the plant property boundary at 10° intervals, plus additional off-property receptors at distances of 0.4, 0.6, 0.8, 1.0 and 1.2 km from the proposed stack to cover the area between the property boundary and the closest regular receptor ring (i.e., 1.5 km). The property boundary receptors used for the modeling are presented in Table 6-6. All receptors locations are relative to the SKC plant baseline location.

The far field receptor grid included five additional rings of receptors at distances of 7.0, 9.0, 11.0, 13.0, and 15.0 km. For the AAQS screening only, an additional grid was utilized for distances of 5.0, 5.5, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 9.5, 10.0, 10.5, and 11.0 km with radial directions of 200°, 210°, 220°, 230°, and 240°.

Table 6-6. SKC Property Boundary Receptors Used in the Modeling Analysis

Direction (deg)	Distance (m)	Direction (deg)	Distance (m)
10	657	190	289
20	636	200	276
30	491	210	269
40	410	220	271
50	361	230	280
60	332	240	270
70	316	250	403
80	310	260	427
90	314	270	469
100	328	280	482
110	355	290	483
120	400	300	450
130	696	310	500
140	678	320	595
150	440	330	764
160	346	340	1,113
170	315	350	1,285
180	297	360	1,243

Note: Distances are relative to the SKC plant baseline location.
deg = degree.
m = meter.

6.5.3 CLASS I IMPACT ASSESSMENT

Two PSD Class I areas reside within 100 km of the SKC plant site: the Wolf's Island Wilderness Area (WIWA) and Okefenokee Wilderness Area (OWA). The WIWA is located 98 km north-northeast of the plant site and is represented by one discrete receptor. The OWA is approximately 55 km west-northwest of the plant site and is modeled with 10 discrete receptors located along the southern and eastern edges of the OWA. The Class I receptors are listed in Table 6-7.

6.6 BUILDING DOWNWASH CONSIDERATIONS

The procedures used for addressing the effects of building downwash are those recommended in the ISC Dispersion Model User's Guide. The building height, length, and width are input to the model, which uses these parameters to modify the dispersion parameters. For short stacks (i.e., physical stack height is less than $H_b + 0.5 L_b$, where H_b is the building height and L_b is the lesser of the building height or projected width), the Schulman and Scire (1980) method is used. The features of the Schulman and Scire method are as follows:

1. Reduced plume rise as a result of initial plume dilution,
2. Enhanced plume spread as a linear function of the effective plume height, and
3. Specification of building dimensions as a function of wind direction.

For cases where the physical stack is greater than $H_b + 0.5 L_b$ but less than GEP, the Huber-Snyder (1976) method is used. For both downwash methods, direction-specific building dimensions are input for H_b and L_b for 36 radial directions, with each direction representing a 10 degree sector.

The current SKC plant site contains stacks with heights below GEP, and as such, the modeling analysis addresses the effects of aerodynamic downwash on these stacks. In the future, SKC's proposed package boiler combined stack will be tall enough such that it is essentially not affected by any SKC buildings. However, the proposed AES Cedar Bay CFB building will cause downwash of this stack for certain wind directions. The proposed AES Cedar Bay limestone dryers will only be influenced by the AES Cedar Bay CFB building. SKC buildings are far enough away or short enough such that they will not influence the AES Cedar Bay sources.

To determine the potential for downwash to occur, the following buildings were analyzed from a layout plan of the site.

Table 6-7. Wolf Island and Okefenokee Wilderness Area Receptors Used in the Modeling Analysis

UTM Coordinates		PSD Class I Area
East	North	
470.5	3,459.0	Wolf Island
391.0	3,417.0	Okefenokee
390.0	3,410.0	Okefenokee
392.0	3,400.0	Okefenokee
390.0	3,395.0	Okefenokee
391.0	3,390.0	Okefenokee
390.0	3,384.0	Okefenokee
383.0	3,382.0	Okefenokee
378.0	3,382.0	Okefenokee
374.0	3,383.0	Okefenokee
370.0	3,383.0	Okefenokee

<u>Building</u>	<u>Height (ft)</u>
Recovery Boilers	90
Power Boilers	60
AES Cedar Bay CFB Steam Generation Bldg.	161 (future only)
Pulp Mill	72
Bark Boilers	60

Baseline sources are not affected by the AES Cedar Bay CFB steam generation building, since this building is not yet constructed. All other buildings identified above affect both baseline and future stacks. The potential for downwash was determined for each 1 degree within each 10-degree direction sector. For each direction, a building structure was determined to be within the zone of influence of a stack if the stack is within $5L_b$ downwind off the building, $2L_b$ upwind of the building, or $0.5L_b$ crosswind of the building. Based on this analysis, direction-specific building heights and widths were developed for each 10-degree direction sector and included for all baseline and future stacks on the SKC site that were below GEP. This analysis included the new AES Cedar Bay sources as well. A summary of all building parameters utilized in the modeling analysis is presented in Table 6-8.

6.7 BACKGROUND CONCENTRATIONS

To estimate total air quality concentrations, a background concentration must be added to the modeling results. The background concentration is considered to be the air quality concentration contributed by sources not included in the modeling evaluation.

The derivation of the background concentration for the modeling analysis was presented in Section 4.0. Based on this analysis, the background SO_2 concentrations were determined to be 68 and 28 $\mu g/m^3$ for the 3- and 24-hour averaging periods, respectively, and 5 $\mu g/m^3$ for the annual averaging period. These background levels were added to model-predicted concentrations to estimate total air quality levels for comparison to AAQS.

6.8 AIR QUALITY MODELING RESULTS

6.8.1 SIGNIFICANT IMPACT ANALYSIS

The maximum SO_2 impacts as a result of the proposed package boilers only are presented in Table 6-9. As indicated, the maximum annual, 24-hour and 3-hour predicted SO_2 concentrations are 6.4, 105, and 428 $\mu g/m^3$, respectively, which are above the respective SO_2 significant impact

Table 6-8. Influencing Building Structures for Proposed Sources

Wind Flow Vector (degrees)	Primary Influencing Structure	Building Height (m)	Building Diagonal (m)
<u>Proposed AES Cedar Bay CFB Stack --- GEP Stack --- No Influencing Structures</u>			
<u>Proposed AES Cedar Bay Limestone Dryer Stacks</u>			
10-40	CFB Boiler Building	49.07	81.32
50-110	None		
120-140	AES Limestone Dryer Building	10.66	21.70
150-220	CFB Boiler Building	49.07	81.32
230-260	None		
270-290	Recovery Boiler Bldg.	27.43	53.64
300-320	AES Limestone Dryer Building	10.66	21.70
330-360	CFB Boiler Building	49.07	81.32
<u>Proposed SKC Package Boilers Combined Stack</u>			
10-80	None		
90-110	CFB Boiler Building	49.07	81.32
120	Bark, Power, Recov. Bld Tier	18.29	121.55
130-150	Recovery Boiler Bldg.	27.43	53.64
160-170	Bark, Power, Recov. Bld Tier	18.29	121.55
180-200	Pulp Mill Building	21.95	94.33
210-270	None		
280-300	Bark, Power, Recov. Bld Tier	18.29	121.55
310-330	None		
340-360	Bark, Power, Recov. Bld Tier	18.29	121.55

Table 6-9. Maximum Predicted SO₂ Concentrations for the Proposed Package Boilers Only

Averaging Time	Concentration ^a (µg/m ³)	Receptor Location ^b		Period Ending (YYMMDDHH)
		Direction (degrees)	Distance (m)	
Annual	5.5	100.	403.	83-----
	4.6	110.	355.	84-----
	6.4	110.	355.	85-----
	4.5	110.	355.	86-----
	5.0	110.	355.	87-----
24-Hour Highest	100	100.	328.	83031924
	100	110.	355.	84022924
	105	110.	438.	85021224
	77	110.	355.	86030224
	83	100.	403.	87040524
24-Hour HSH ^c	69	100.	328.	83030224
	64	100.	403.	84022924
	87	110.	355.	85011524
	55	110.	355.	86042924
	71	100.	403.	87120124
3-Hour Highest	428	100.	328.	83030303
	267	100.	403.	84040603
	301	110.	355.	85051703
	307	110.	355.	86030206
	286	100.	403.	87040503
3-Hour HSH ^c	281	100.	328.	83031906
	190	110.	355.	84120809
	242	110.	355.	85011503
	230	110.	355.	86100506
	255	110.	355.	87031003

Note: YY=Year, MM=Month, DD=Day, HH=Hour

^a Maximum concentrations indicated are for the proposed package boilers only with no offsets.

^b All receptor coordinates are reported with respect to the SKC plant baseline location.

^c Highest, second-highest (HSH) concentrations shown.

levels of 1, 5, and 25 $\mu\text{g}/\text{m}^3$. Further modeling analyses are therefore required for this pollutant to demonstrate compliance with allowable PSD increments and AAQS. It was also determined that the distance of the proposed project's significant impact for SO_2 is 15 km. This analysis also indicates that the maximum impacts due to the proposed package boilers only occurs at the SKC property boundary.

6.8.2 AAQS ANALYSIS

6.8.2.1 Area of SKC Maximum Impacts

The maximum SO_2 impacts in the area within 2.0 km from the SKC site are presented in Table 6-10. This table shows the predicted ambient air quality for the localized area including where the SKC source's maximum impacts are predicted to occur. The maximum annual, 24-hour, and 3-hour SO_2 concentrations, including background, are 47, 196, and 579 $\mu\text{g}/\text{m}^3$, respectively. These concentrations are well below the AAQS of 60, 260, and 1,300 $\mu\text{g}/\text{m}^3$, respectively, for each averaging time.

6.8.2.2 Area of Maximum Impacts Due to All Sources

The results of the SO_2 screening modeling analyses for all sources are presented in Tables 6-11, 6-12, and 6-13. Table 6-11 indicates that the maximum concentrations are located at or next to the last near-field distance of 5.0 km (increasing away from the SKC facility) towards directions 210 to 220 degrees. The far-field screening results are presented in Table 6-12. The near-field and far-field screening results indicate that predicted maximum 3-hour concentrations are all well below the AAQS. However, predicted violations of the annual and 24-hour SO_2 AAQS occur along radials 210 to 230 degrees and between distances 5.0 and 11.0 km from the SKC site. As will be demonstrated, SKC does not contribute significantly (i.e., less than 1 $\mu\text{g}/\text{m}^3$, annual average and less than 5 $\mu\text{g}/\text{m}^3$, 24-hour) to these predicted violations. The predicted violations are due to sources in Jacksonville other than SKC and AES Cedar Bay. Based on these results, additional screening analyses were performed.

Table 6-13 presents the AAQS modeling results using a third screening grid with a receptor resolution of 500 m centered over the domain of highest concentrations. From this analysis, all annual and 24-hour model predicted AAQS violations were identified. For each predicted violation, source contributions were determined to ascertain if the proposed SKC package boilers

Table 6-10. Maximum Predicted SO₂ Concentrations Within 2 km of the SKC Plant Site AAQS Screening Analysis

Averaging Time	Concentration ($\mu\text{g}/\text{m}^3$)			Receptor Location ^a		Period Ending (YYMMDDHH)
	Total	Background	Modeled	Direction (degrees)	Distance (m)	
Annual	43	5	38	230	2000	83-----
	42	5	37	220	2000	84-----
	47	5	42	220	2000	85-----
	43	5	38	250	2000	86-----
	40	5	35	220	2000	87-----
24-Hour ^b	192	28	164	310	600	83101324
	196	28	168	90	2000	84060824
	187	28	159	330	1500	85070124
	176	28	148	60	2000	86070724
	187	28	159	240	1000	87121024
3-Hour ^b	571	68	503	50	2000	83052518
	555	68	487	150	1200	84042912
	531	68	463	50	800	85091006
	579	68	511	60	2000	86062924
	516	68	448	140	1500	87062915

Note: m = meter.
SO₂ = sulfur dioxide.
 $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.
YYMMDDHH = year, month, day, hour.

^a Relative to the location of the SKC plant baseline location.

^b All short-term concentrations indicate highest, second-highest concentrations.

Table 6-11. Maximum Predicted SO₂ Concentrations for the AAQS Screening Analysis, Near-Field Receptors

Averaging Time	Modeled Concentration (µg/m ³)	Receptor Location ^a		Period Ending (YYMMDDHH)
		Direction (degrees)	Distance (m)	
Annual	54	210.	5000.	83-----
	53	210.	5000.	84-----
	56	210.	5000.	85-----
	58	210.	5000.	86-----
	54	210.	5000.	87-----
24-Hour ^b	200	220.	5000.	83020124
	244	220.	5000.	84080424
	217	260.	4000.	85032724
	219	220.	5000.	86051824
	224	220.	5000.	87031824
3-Hour ^b	864	220.	5000.	83030606
	673	220.	5000.	84080318
	617	260.	4000.	85083012
	618	220.	5000.	86021718
	531	120.	5000.	87042712

Note: YY=Year, MM=Month, DD=Day, HH=Hour

^a All receptor coordinates are reported with respect to the SKC plant baseline location.

^b All short-term concentrations indicate highest, second-highest concentrations.

Table 6-12. Maximum Predicted SO₂ Concentrations for the AAQS Screening Analysis, Far-Field Receptors

Averaging Time	Modeled Concentration (µg/m ³)	Receptor Location ^a		Period Ending (YYMMDDHH)
		Direction (degrees)	Distance (m)	
Annual	53	210.	7000.	83-----
	50	200.	7000.	84-----
	57	210.	9000.	85-----
	54	230.	7000.	86-----
	54	210.	9000.	87-----
24-Hour ^b	309	230.	9000.	83061124
	276	230.	9000.	84091824
	275	210.	11000.	85101724
	242	210.	11000.	86032624
	260	230.	9000.	87110224
3-Hour ^b	664	230.	9000.	83102118
	565	190.	7000.	84081112
	680	230.	7000.	85042818
	565	200.	7000.	86060312
	566	230.	9000.	87110112

Note: YY=Year, MM=Month, DD=Day, HH=Hour

^a All receptor coordinates are reported with respect to the SKC plant baseline location.

^b All short-term concentrations indicate highest, second-highest concentrations.

Table 6-13. Maximum Predicted SO₂ Concentrations for the AAQS Detailed Screening Grid^a

Averaging Time	Modeled Concentration (μg/m ³)	Receptor Location ^b		Period Ending (YYMMDDHH)
		Direction (degrees)	Distance (m)	
Annual	63	210.	6000.	83-----
	71	210.	6000.	84-----
	62	210.	6000.	85-----
	64	210.	6000.	86-----
	64	210.	6000.	87-----
24-Hour ^c	422	230.	8500.	83102124
	278	200.	6500.	84091024
	310	210.	10500.	85101724
	257	240.	7500.	86120924
	272	230.	8500.	87030624
3-Hour ^c	864	220.	5000.	83030606
	733	230.	8500.	84010212
	680	230.	7000.	85042818
	747	200.	7500.	86050312
	716	200.	7500.	87111515

Note: YY=Year, MM=Month, DD=Day, HH=Hour

^a Centered on the Jacksonville area.

^b All receptor coordinates are reported with respect to the SKC plant baseline location.

^c All short-term concentrations indicate highest, second-highest concentrations.

contributed to any violations in excess of the significant impact levels. The predicted violations and the proposed package boilers' contribution to each are summarized in Tables 6-14 and 6-15 for the annual and 24-hour averaging times, respectively.

The results indicate that the proposed SKC package boilers will not cause or contribute significantly to any modeled violation of the SO₂ AAQS (annual or 24-hour) which is predicted to occur within the significant impact area of the proposed project. The predicted violations are due almost solely to sources other than SKC and AES Cedar Bay. No 3-hour SO₂ AAQS exceedances were predicted to occur in this area. Source contributions to the maximum 24- and 3-hour AAQS impacts are provided in Appendix E.

6.8.3 PSD CLASS II ANALYSIS

6.8.3.1 Area of SKC Maximum Impacts

The maximum SO₂ PSD Class II increment consumption in the area within 2.0 km from the SKC site is presented in Table 6-16. These impacts reflect the effects of all increment consuming sources, including SKC and AES Cedar Bay. This table shows the maximum PSD increment consumption in the localized area including where the SKC source's maximum impacts are predicted to occur. The maximum annual PSD increment consumption is less than zero. The maximum 24-hour and 3-hour PSD increment consumption is 58 and 264 $\mu\text{g}/\text{m}^3$, respectively. These are well below the allowable PSD Class II increments of 20, 91, and 512 $\mu\text{g}/\text{m}^3$ for the annual average, 24-hour, and 3-hour averaging times, respectively.

6.8.3.2 Area of Maximum Impacts Due to All Sources

The results of the PSD Class II screening analysis for the near-field and far-field receptor grids are presented in Tables 6-17 and 6-18, respectively. These impacts reflect the effects of all increment consuming sources including SKC and AES Cedar Bay. The annual average increment consumption values are well below the allowable increment of 20 $\mu\text{g}/\text{m}^3$. Therefore, no further refinements were performed for the annual averaging time.

The maximum 24-hour and 3-hour increment consumption concentrations due to all sources are generally located in a direction of 240 to 260 degrees and at a distance of 4.0 km from SKC. Based on these results, refined modeling analyses were performed with 100-meter receptor spacing at distances from 3,500 to 4,600 m and with a 2-degree azimuth interval spacing from 236° to 264° for all 5 years of meteorological data.

Table 6-14. SKC Contributions to Predicted Annual SO₂ AAQS Violations

Total	Concentration ($\mu\text{g}/\text{m}^3$)			Receptor Locations ^a		Period Ending (YYMMDDHH)
	Background	Modeled	SKC ^b	Direction (degrees)	Distance (m)	
68	5	63	0.33	210	6,000	83
63	5	58	0.46	220	6,000	83
62	5	57	0.20	200	8,000	83
60	5	56	0.48	220	5,500	83
63	5	58	0.26	210	8,500	83
61	5	57	0.35	220	5,500	84
60	5	55	0.25	210	5,500	84
63	5	58	0.34	220	6,000	84
75	5	71	0.23	210	6,000	84
60	5	55	0.22	210	6,500	84
64	5	59	0.19	210	8,500	84
61	5	56	0.25	210	5,000	85
62	5	57	0.36	220	5,500	85
61	5	56	0.18	200	5,500	85
65	5	60	0.35	220	6,000	85
67	5	62	0.23	210	6,000	85
62	5	57	0.18	200	6,000	85
61	5	56	0.33	220	6,500	85
64	5	59	0.22	210	6,500	85
60	5	55	0.21	210	7,000	85
64	5	59	0.20	210	7,500	85
63	5	58	0.20	210	8,000	85
65	5	60	0.19	210	8,500	85
62	5	57	0.18	210	9,000	85
63	5	58	0.28	210	5,000	86
61	5	56	0.35	230	5,500	86
63	5	58	0.32	220	6,000	86
68	5	63	0.26	210	6,000	86
62	5	57	0.21	200	6,000	86
61	5	56	0.25	210	6,500	86
62	5	57	0.21	210	8,500	86
60	5	55	0.33	220	5,500	86
62	5	57	0.32	220	6,000	87
69	5	64	0.26	210	6,000	87
62	5	57	0.25	210	6,500	87
62	5	57	0.18	200	8,000	87
67	5	62	0.21	210	8,500	87
61	5	56	0.27	210	7,500	87

Note: YYMMDDHH = Year, Month, Day, Hour.

^a Relative to the location SKC plant baseline.

^b SKC contribution to modeled concentration.

Table 6-15. SKC Contributions to Predicted 24-Hour SO₂ AAQS Violations (Page 1 of 2)

Total	Concentration ($\mu\text{g}/\text{m}^3$)			Receptor Locations ^a		Period Ending (YYMMDDHH)
	Background	Modeled	SKC ^b	Direction (degrees)	Distance (m)	
450	28	422	0.19	230	8,500	83102124
396	28	368	0.23	230	8,500	83101624
340	28	312	0.00	210	6,000	83030524
337	28	309	2.99	230	9,000	83061124
332	28	304	0.07	230	8,500	83101524
327	28	299	1.33	200	8,500	83102124
314	28	286	0.67	200	8,000	83061124
311	28	283	0.29	200	8,000	83101024
308	28	280	0.91	230	9,000	83021324
291	28	263	1.20	200	9,500	83102124
291	28	263	1.28	200	9,000	83122024
290	28	262	0.05	210	10,000	83011924
289	28	261	0.01	210	10,500	83061224
287	28	259	0.00	210	6,000	83020124
287	28	259	1.14	200	10,000	83122024
279	28	251	2.29	200	9,500	83101624
275	28	247	1.59	230	9,000	83101024
270	28	242	0.07	200	8,000	83011924
270	28	242	0.08	210	11,000	83011924
270	28	242	1.14	200	10,000	83102124
266	28	238	1.08	200	10,500	83122024
261	28	233	0.03	210	11,000	83061024
306	28	278	0.00	200	6,500	84091024
304	28	276	1.71	230	9,000	84091824
278	28	250	1.61	230	9,500	84091824
272	28	244	0.00	220	5,000	84080424
267	28	239	0.00	200	7,000	84012024
266	28	238	0.00	210	6,000	84061724
338	28	310	1.02	210	10,500	85101724
318	28	290	0.46	210	10,000	85030724
303	28	275	0.48	210	11,000	85101724
299	28	271	0.87	210	11,000	85101824
294	28	266	0.14	210	11,000	85080324
292	28	264	0.49	210	11,000	85050424
289	28	261	0.90	210	10,500	85101824
289	28	261	0.17	210	9,500	85080324
282	28	254	0.51	210	10,500	85050424
278	28	250	0.16	210	10,000	85080324
272	28	244	0.15	210	10,500	85080324
270	28	242	0.94	210	10,000	85101824
264	28	237	0.64	200	7,500	85091824

Table 6-15. SKC Contributions to Predicted 24-Hour SO₂ AAQS Violations (Page 2 of 2)

Total	Concentration ($\mu\text{g}/\text{m}^3$)		SKC ^b	Receptor Locations ^a		Period Ending (YYMMDDHH)
	Background	Modeled		Direction (degrees)	Distance (m)	
263	28	236	0.03	200	7,500	85101724
262	28	233	0.00	240	8,500	85102724
285	28	257	0.00	240	7,500	86120924
283	28	255	0.17	200	7,500	86032824
281	28	253	0.18	210	10,500	86032624
279	28	251	0.01	200	6,500	86022824
272	28	244	0.95	210	11,000	86030824
270	28	242	0.20	210	10,000	86060524
270	28	242	0.17	210	11,000	86032624
266	28	238	0.00	220	6,000	86030924
265	28	237	0.04	210	9,500	86032924
265	28	237	0.00	240	7,500	86081324
264	28	236	0.00	210	6,000	86081224
263	28	235	0.00	210	5,000	86072524
261	28	233	0.00	200	7,500	86050324
261	28	233	1.70	230	9,000	86010824
300	28	272	1.59	230	8,500	87030624
295	28	267	1.07	200	8,000	87110124
288	28	260	1.01	230	9,000	87110224
284	28	256	1.11	230	9,000	87110124
282	28	254	0.22	230	8,500	87031124
273	28	245	0.12	210	10,000	87052224
273	28	245	0.85	200	8,000	87030624
269	28	241	0.48	230	9,000	87052824
265	28	237	0.45	210	10,000	87022024
264	28	236	0.07	230	9,000	87030724
262	28	234	0.00	220	5,000	87031824
260	28	232	0.00	210	10,500	87050924

Note: YYMMDDHH = Year, Month, Day, Hour.

^a Relative to the SKC plant baseline location.

^b SKC contribution to modeled concentration.

Table 6-16. Maximum Predicted SO₂ PSD Class II Increment Consumption Within 2 km of the SKC Plant Site Screening Analysis

Averaging Time	Concentration (µg/m ³)	Receptor Location ^a		Period Ending YYMMDDHH
		Direction (degrees)	Distance (m)	
Annual	< 0.0	-	-	83----
	< 0.0	-	-	84----
	< 0.0	-	-	85----
	< 0.0	-	-	86----
	< 0.0	-	-	87----
24-Hour ^b	53	100	328	83030324
	58	240	235	84011424
	32	250	185	85121524
	38	110	355	86040124
	36	250	185	87110524
3-Hour ^b	264	100	328	83030224
	177	100	328	84021903
	178	100	328	85051706
	215	100	328	86022603
	234	110	355	87041706

Note: m = meter.
 PDS = prevention of significant deterioration.
 SO₂ = sulfur dioxide.
 µg/m³ = micrograms per cubic meter.
 YYMMDDHH = year, month, day, hour.

^a Relative to the location of the SKC plant baseline location.
^b All short-term concentrations are highest, second-highest concentrations.

Table 6-17. Maximum Predicted SO₂ Concentrations for the PSD Class II Screening Analysis, Near-Field Receptors

Averaging Time	Concentration (µg/m ³)	Receptor Location ^a		Period Ending (YYMMDDHH)
		Direction (degrees)	Distance (m)	
Annual	-0.0	250.	5000.	83-----
	0.2	250.	5000.	84-----
	0.2	250.	5000.	85-----
	0.1	250.	5000.	86-----
	0.4	250.	5000.	87-----
24-Hour ^b	62	250.	4000.	83082824
	72	260.	4000.	84042124
	79	260.	4000.	85103124
	70	250.	4000.	86042924
	73	240.	4000.	87112124
3-Hour ^b	310	250.	4000.	83071012
	260	250.	4000.	84091115
	299	260.	4000.	85080712
	308	250.	4000.	86100215
	282	250.	4000.	87080915

Note: YY=Year, MM=Month, DD=Day, HH=Hour

^a All receptor coordinates are reported with respect to the SKC plant baseline location.

^b All short-term concentrations indicate highest, second-highest concentrations.

Table 6-18. Maximum Predicted SO₂ Concentrations for the PSD Class II Screening Analysis, Far-Field Receptors

Averaging Time	Concentration (µg/m ³)	Receptor Location ^a		Period Ending (YYMMDDHH)
		Direction (degrees)	Distance (m)	
Annual	-1.1	280.	15000.	83-----
	-1.1	110.	13000.	84-----
	-1.2	310.	15000.	85-----
	-0.7	280.	7000.	86-----
	-0.8	70.	15000.	87-----
24-Hour ^b	29.	240.	7000.	83051024
	27.	40.	7000.	84052724
	38.	80.	7000.	85042524
	42.	100.	9000.	86082424
	30.	100.	9000.	87042524
3-Hour ^b	140.	80.	9000.	83091112
	130.	90.	7000.	84091412
	169.	80.	7000.	85042512
	182.	90.	7000.	86061712
	129.	60.	7000.	87080715

Note: YY=Year, MM=Month, DD=Day, HH=Hour

^a All receptor coordinates are reported with respect to the SKC plant baseline location.

^b All short-term concentrations indicate highest, second-highest concentrations.

The refined modeling results, presented in Table 6-19, indicated numerous predicted violations of the 24-hour PSD Class II increment. The major contributing facility to these violations (see EVENT model output) is a source other than SKC and AES Cedar Bay, located 4.1 km from the SKC site. This source currently uses natural gas, but was modeled for its potential to burn fuel oil as a backup fuel. No 3-hour PSD increment violations were predicted.

The proposed SKC package boilers only were modeled for each year with the refined grid to determine if the boilers contributed significantly to any of the predicted 24-hour PSD violations. The model results indicated that the SKC package boilers were significant (i.e., greater than $5 \mu\text{g}/\text{m}^3$ impact) over this grid for only the following days:

<u>Year</u>	<u>SKC Significant Impact Days</u>
1983	6/12 (i.e., June 12)
1984	6/12
1985	10/17
1986	8/25
1987	5/9, 6/6, 11/3

For the above days, there were several PSD Class II exceedances predicted, some of which resulted in PSD violations. However, SKC did not contribute significantly to any of these. (Note: an exceedance is a concentration in excess of the PSD increment; a violation is two or more exceedances at a particular receptor occurring in the same year.) In 1983, no PSD Class II exceedances occurred on June 12. In 1984, there was only one PSD Class II exceedance of $96.26 \mu\text{g}/\text{m}^3$ on June 12. SKC was not significant at the receptor where the exceedance was predicted. In 1985, there was only one PSD Class II exceedance of $131.67 \mu\text{g}/\text{m}^3$ on October 17. SKC was not significant at the receptor at which the exceedance was predicted. In 1986, there were two PSD Class II exceedances predicted on August 25 but at two different receptors. SKC was not significant at either of these receptors. In 1987, no PSD Class II exceedances were predicted for May 9, June 6, or November 3. Therefore, the SKC package boilers do not contribute significantly to any modeled violation of the allowable PSD increment. Source contributions to the maximum 24- and 3-hour PSD Class II impacts are provided in Appendix E.

6.8.4 PSD CLASS I ANALYSIS

The maximum SO_2 PSD Class I modeling results are presented in Table 6-20. The maximum annual, 24-hour, and 3-hour concentrations are 0.00, 4.1, and $19 \mu\text{g}/\text{m}^3$, respectively. These

Table 6-19. Maximum Predicted SO₂ Concentrations for the PSD Class II Refined Analysis Grid

Averaging Time	Concentration (µg/m ³)	Receptor Location ^a		Period Ending (YYMMDDHH)
		Direction (degrees)	Distance (m)	
Annual	4.5	250.	4500.	83-----
	5.0	258.	4300.	84-----
	2.5	254.	4600.	85-----
	4.5	258.	4400.	86-----
	3.8	248.	3800.	87-----
24-Hour ^b	133.	250.	4500.	83101024
	123.	258.	4300.	84061624
	123.	256.	4300.	85071424
	121.	256.	4300.	86043024
	106.	246.	3700.	87013124
3-Hour ^b	415.	250.	3900.	83082912
	382.	250.	3900.	84081712
	394.	250.	3900.	85060218
	447.	250.	3900.	86052415
	374.	254.	4400.	87081212

Note: YY=Year, MM=Month, DD=Day, HH=Hour

^a All receptor coordinates are reported with respect to the SKC plant baseline location.

^b All short-term concentrations indicate highest, second-highest concentrations.

Table 6-20. Maximum Predicted SO₂ Concentrations for the PSD Class I Screening Analysis

Averaging Time	Concentration (μg/m ³)	Receptor Location ^a		Period Ending (YYMMDDHH)
		UTM-E (m)	UTM-N (m)	
Annual	0.0	390000.	3384000.	83-----
	0.0	370000.	3383000.	84-----
	-0.1	390000.	3410000.	85-----
	0.0	392000.	3400000.	86-----
	0.0	370000.	3383000.	87-----
24-Hour ^b	3.9	390000.	3395000.	83041324
	3.8	392000.	3400000.	84112724
	4.1	392000.	3400000.	85041224
	3.8	392000.	3400000.	86043024
	3.7	392000.	3400000.	87072124
3-Hour ^b	15	391000.	3417000.	83111815
	19	391000.	3390000.	84082115
	17	390000.	3395000.	85022315
	17	390000.	3395000.	86111615
	15	391000.	3417000.	87122412

Note: YY=Year, MM=Month, DD=Day, HH=Hour

^a All receptor coordinates are reported in Universal Transverse Mercator (UTM) coordinates.

^b All short-term concentrations indicate highest, second-highest concentrations.

impacts are below the allowable PSD Class I increments of 2, 5, and 25 $\mu\text{g}/\text{m}^3$, respectively. The proposed project with other increment consuming sources will therefore meet all allowable PSD increments for the two Class I areas. The modeling results are based on a zero half-life decay factor for SO_2 . Source contributions to the maximum 24- and 3-hour PSD Class I impacts are provided in Appendix E.

6.8.5 TOXIC IMPACT ANALYSIS

The maximum impacts of regulated and nonregulated toxic air pollutants that will be emitted by the SKC facility are presented in Table 6-21. The results indicated that all 8-hour, 24-hour, and annual impacts for these pollutants will be below the FDER no-threat level (NTL) for each respective averaging time, except for sulfuric acid mist. The maximum predicted 24-hour average sulfuric acid mist impact is 3.14 $\mu\text{g}/\text{m}^3$, compared to the NTL of 2.38 $\mu\text{g}/\text{m}^3$.

The NTL for sulfuric acid is predicted to be exceeded only out to a distance of 1,600 m from the SKC facility. Beyond this distance, the NTL is complied with. The area predicted to exceed the NTL for sulfuric acid is shown in Figure 6-1. The only property within this area which is not SKC property is a low-lying area east of the wastewater treatment ponds and just west of Dunn Creek, and a small strip of land just east of Eastport Road and west of the ponds. There are no residences, businesses, or dwellings located in these two areas. As a result, there is no risk to the public from exposure to sulfuric acid mist emissions.

Table 6-21. Maximum Toxic Pollutant Impacts for the Proposed SKC Package Boilers

Pollutant	Maximum Emission Rate (lb/hr)	Concentration ($\mu\text{g}/\text{m}^3$)					
		8-hr		24-hr		Annual	
		Impact	NTL	Impact	NTL	Impact	NTL
Arsenic (As)	0.00207	0.002	2	0.0009	0.48	0.00005	0.00023
Barium (Ba)	0.0013	0.001	5	0.0006	1.2	0.00004	50
Beryllium (Be)	0.00123	0.001	0.02	0.0005	0.0048	0.00003	0.00042
Bromine (Br)	0.00345	0.003	6.6	0.001	1.584	0.00009	NA
Cadmium (Cd)	0.00518	0.004	0.5	0.002	0.12	0.0001	0.00056
Chlorine (Cl)	0.314	0.25	15	0.13	3.6	0.008	0.4
Chromium (Cr)	0.234	0.02	5	0.010	1.2	0.0006	NA
Copper (Cu)	0.1382	0.01	1	0.059	0.24	0.004	NA
Fluorides (F)	0.0158	0.0127	25	0.007	6	0.0004	NA
Manganese (Mn)	0.00484	0.004	50	0.002	12	0.0001	0.4
Mercury (Hg)	0.00168	0.0014	0.5	0.0007	0.12	0.00004	0.3
Molybdenum (Mo)	0.0241	0.02	50	0.01	12	0.0006	NA
Nickel (Ni)	0.0839	0.07	1	0.04	0.24	0.002	0.0042
Phosphorus (P)	0.0523	0.04	1	0.02	0.24	0.001	NA
Selenium (Se)	0.00558	0.005	2	0.002	0.48	0.001	NA
Sulfuric Acid Mist	7.4	6.0	10	3.14	2.4	0.19	NA
Tin (Sn)	0.163	0.13	1	0.07	0.24	0.004	NA

Note: Highest predicted concentrations for a 10.0 g/s (79.36 lb/hr) emission rate:

8-Hour = $63.90 \mu\text{g}/\text{m}^3$.

24-Hour = $33.71 \mu\text{g}/\text{m}^3$.

Annual = $2.06 \mu\text{g}/\text{m}^3$.

lb/hr = pounds per hour.

NA = not applicable.

$\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.

6-37

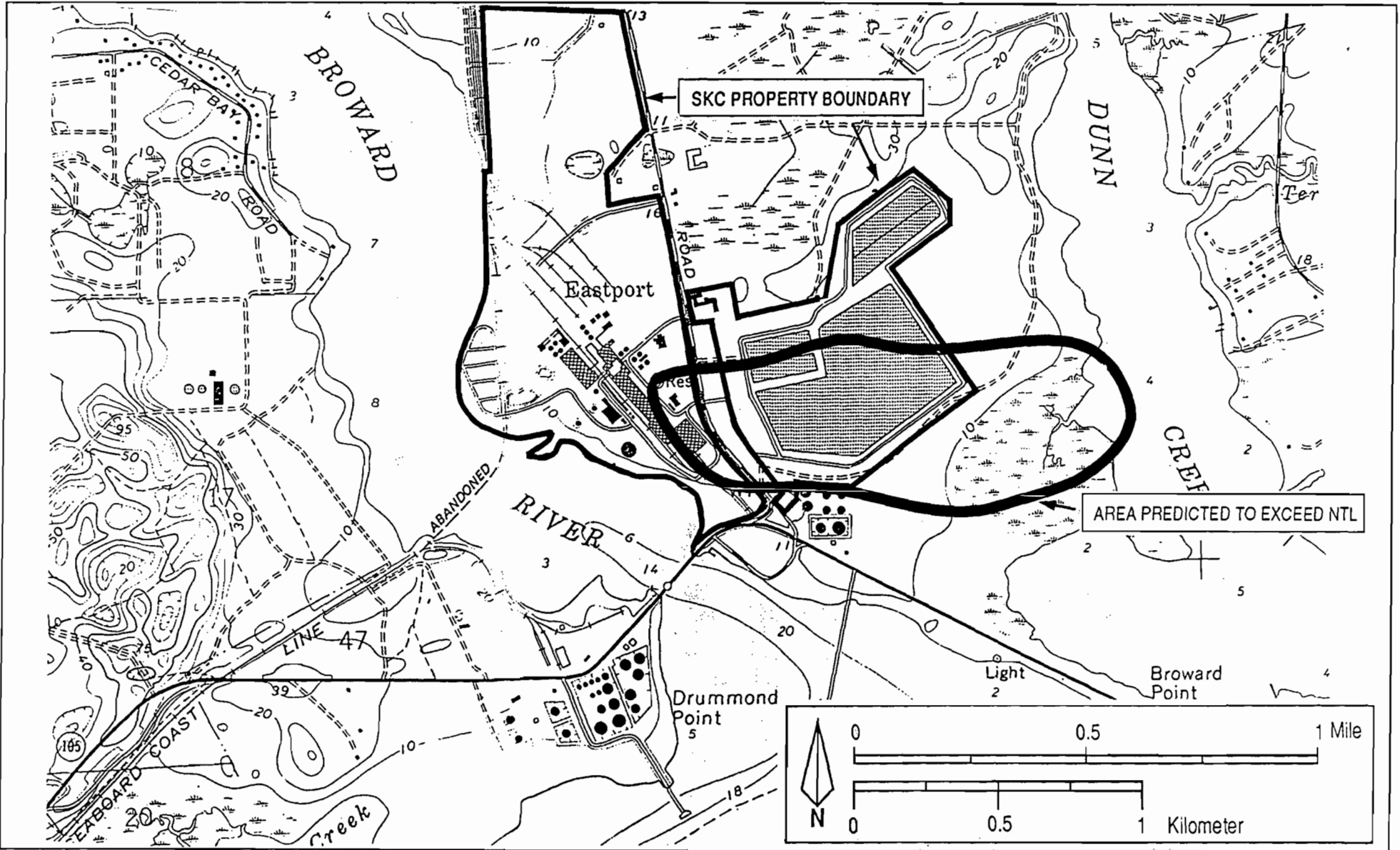


Figure 6-1 AREA PREDICTED TO EXCEED 24-HOUR NTL FOR SULFURIC ACID MIST



7.0 ADDITIONAL IMPACT ANALYSIS

7.1 IMPACTS UPON VEGETATION

Air pollutants at elevated levels are known to potentially cause injury to plants. In the case of SO₂, acute injury usually develops within a few hours or days of exposure. Symptoms include marginal, flecked, and/or intercostal necrotic areas which initially appear water-soaked and dullish green. Injury generally occurs to younger leaves. Chronic SO₂ injury usually is evident by signs of chlorosis, bronzing, premature senescence, reduced growth and possible tissue necrosis (EPA, 1982). Phytotoxic symptoms demonstrated by plants can occur as low as 88 µg/m³ (U.S. Department of Health, Education, and Welfare, 1971). However, this occurs with the more primitive plants (i.e., mosses, ferns, lichens).

It is also important to note that because plants possess metabolisms that can convert SO₂ into cellular constituents, they are capable of recovery when exposed to elevated levels of SO₂ for short periods of time.

Many studies have been conducted to determine the effects of high concentration, short-term SO₂ exposure on agronomic and natural community plants. Sensitive plants include ragweed, legumes, blackberry, southern pine, red and black oak, white ash, and sumac. These species can be injured by exposure to 3-hour SO₂ concentrations ranging from 790 to 1,570 µg/m³. Intermediate sensitivity plants include maples, locust, sweetgum, cherry, elm, and many crop and garden species. These species can be injured by exposure to 3-hour SO₂ concentrations ranging from 1,570 to 2,100 µg/m³. Resistant species (possible injury at concentrations above 2,100 µg/m³ for 3 hours) include white oak, potato, cotton, dogwood, and peach (EPA, 1982). A study of native Floridian species (Woltz and Howe, 1981) demonstrated that cypress, slash pine, live oak, and mangrove exposed to 1,300 µg/m³ SO₂ for 8 hours were not visibly damaged. This supports the levels cited by other researchers on the effects of SO₂ on vegetation.

The maximum predicted 3-hour SO₂ concentrations in the immediate vicinity of the SKC plant (i.e., within 2.0 km) are less than 600 µg/m³, well below the AAQS for SO₂ of 1,300 µg/m³ and below the injury threshold levels for SO₂-sensitive plants. Maximum 3-hour concentrations farther from SKC are higher, but less than 900 µg/m³, and are due to other SO₂ sources; SKC contributes insignificantly to these maximums.

Similarly, the maximum predicted 24-hour SO₂ concentrations in the immediate vicinity of the SKC plant are less than 200 µg/m³, which are again below the AAQS for SO₂ of 260 µg/m³ and also below the 24-hour injury threshold levels [which range from 470 µg/m³ (Malhotra and Kahn, 1978) to 1,300 µg/m³ (Carlson, 1979)]. Predicted annual average concentrations near SKC (less than 50 µg/m³) are below the AAQS of 60 µg/m³, and pose minimal threats to area vegetation. Maximum concentrations farther from SKC are higher, but these are due to other SO₂ sources, and as stated before, SKC contributes insignificantly to these maximums.

Emissions of PM(TSP), NO_x and CO due to the proposed project will decrease, thereby having a positive effect upon vegetation. Total PM(TSP) emissions will decrease by 490 TPY and CO emissions by almost 2,000 TPY, and ground level concentrations will decrease greatly due to the increased stack height of the new sources versus the sources which have been shut down.

7.2 IMPACTS UPON SOILS

Soils in the vicinity of the SKC site consist primarily of tidal lands and poorly drained sands with organic pans. The tidal lands occur along the coast, and consist of mucky fine sand to dark-gray fine sand overlying gray fine sand, mixed with broken and whole shells. These soils will not be affected by SO₂ concentrations resulting from facility emissions, because both the underlying substrate and the sea spray from the nearby St. Johns river are neutral to alkaline and would neutralize any acidifying effects of SO₂ deposition.

The poorly drained sands are already strongly acidic. Normal liming practices currently used on soils in the vicinity of SKC by agricultural interests will effectively mitigate the small effects of any increased SO₂ deposition resulting from the increased SO₂ emissions from the proposed project.

7.3 IMPACTS UPON VISIBILITY

SKC has or will be shutting down several sources which have highly visible plumes at present. These include the three recovery boilers, three smelt tanks, and three lime kilns, all of which have wet scrubbers. In addition, the two bark boilers currently operating will be shut down when the AES Cedar Bay facility becomes operational. The elimination of these sources, and the combining of all future sources into one stack discharge, will greatly improve the visible plume conditions of the mill.

Since the Okefenokee PSD Class I area is located approximately 65 km to the west-northwest of the SKC site, a visibility impact assessment of the Class I area is required. A Level I visibility screening analysis was conducted following the procedures outlined in "Workbook for Estimating Visibility Impairment" (EPA, 1988a). The Level-1 screening analysis is designed to provide a conservative estimate of plume visual impacts (i.e., impacts higher than expected). The EPA model, VISCREEN, was used for this analysis.

To determine the net impact upon the Class I area, VISCREEN was executed separately for the sources to be shut down and the proposed sources. Particulate and NO_x emissions used for the calculations were based upon the total baseline emissions and total future emissions (see Table 3-6). Model input and output results are presented in Figures 7-1 and 7-2. As indicated, the maximum visual impacts caused by the proposed modification do not exceed the screening criteria inside or outside the Class I area. Further, the two visibility parameters, Delta E and contrast, generally show improvement for the future case compared to the baseline case. The sole exceptions are the cases where the background = SKY and theta = 140. In these cases, the parameters are virtually unchanged from the baseline case.

7.4 ADDITIONAL GROWTH

No significant growth-related impacts are expected due to the construction and operation of the three package boilers. Compared to the present operations at SKC, no significant increase in employment is expected at the mill due to the three package boilers.

*** Level-1 Screening ***

Input Emissions for

Particulates 521.80 TON/YR
 NOx (as NO2) 500.60 TON/YR
 Primary NO2 .00 TON/YR
 Soot .00 TON/YR
 Primary SO4 .00 TON/YR

**** Default Particle Characteristics Assumed

Transport Scenario Specifications:

Background Ozone: .04 ppm
 Background Visual Range: 25.00 km
 Source-Observer Distance: 61.00 km
 Min. Source-Class I Distance: 61.00 km
 Max. Source-Class I Distance: 80.00 km
 Plume-Source-Observer Angle: 11.25 degrees
 Stability: 6
 Wind Speed: 1.00 m/s

R E S U L T S

Asterisks (*) indicate plume impacts that exceed screening criteria

Maximum Visual Impacts INSIDE Class I Area
 Screening Criteria ARE NOT Exceeded

Backgrnd	Theta	Azi	Distance	Alpha	Crit	Delta E		Contrast	
						Plume	Crit	Plume	Crit
SKY	10.	84.	61.0	84.	2.00	.565	.05	.006	
SKY	140.	84.	61.0	84.	2.00	.082	.05	-.004	
TERRAIN	10.	84.	61.0	84.	2.00	.134	.05	.001	
TERRAIN	140.	84.	61.0	84.	2.00	.032	.05	.001	

Maximum Visual Impacts OUTSIDE Class I Area
 Screening Criteria ARE NOT Exceeded

Backgrnd	Theta	Azi	Distance	Alpha	Crit	Delta E		Contrast	
						Plume	Crit	Plume	Crit
SKY	10.	60.	55.8	109.	2.00	.604	.05	.006	
SKY	140.	60.	55.8	109.	2.00	.084	.05	-.004	
TERRAIN	10.	55.	54.6	114.	2.00	.175	.05	.002	
TERRAIN	140.	55.	54.6	114.	2.00	.043	.05	.002	

Figure 7-1. Level-1 Visibility Screening Analysis for SKC Expansion: Baseline Conditions



Visual Effects Screening Analysis for
 Source: SEMINOLE KRAFT
 Class I Area: OKEFENOKEE WILDERNESS AREA

12169C1
 11/12/92

*** Level-1 Screening ***
 Input Emissions for

Particulates 108.10 TON/YR
 NOx (as NO2) 459.10 TON/YR
 Primary NO2 .00 TON/YR
 Soot .00 TON/YR
 Primary SO4 .00 TON/YR

**** Default Particle Characteristics Assumed

Transport Scenario Specifications:

Background Ozone: .04 ppm
 Background Visual Range: 25.00 km
 Source-Observer Distance: 61.00 km
 Min. Source-Class I Distance: 61.00 km
 Max. Source-Class I Distance: 80.00 km
 Plume-Source-Observer Angle: 11.25 degrees
 Stability: 6
 Wind Speed: 1.00 m/s

R E S U L T S

Asterisks (*) indicate plume impacts that exceed screening criteria

Maximum Visual Impacts INSIDE Class I Area
 Screening Criteria ARE NOT Exceeded

						Delta E	Contrast		
						=====	=====		
Backgrnd	Theta	Azi	Distance	Alpha	Crit	Plume	Crit	Plume	
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
SKY	10.	84.	61.0	84.	2.00	.213	.05	.000	
SKY	140.	84.	61.0	84.	2.00	.056	.05	-.002	
TERRAIN	10.	84.	61.0	84.	2.00	.030	.05	.000	
TERRAIN	140.	84.	61.0	84.	2.00	.007	.05	.000	

Maximum Visual Impacts OUTSIDE Class I Area
 Screening Criteria ARE NOT Exceeded

						Delta E	Contrast		
						=====	=====		
Backgrnd	Theta	Azi	Distance	Alpha	Crit	Plume	Crit	Plume	
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
SKY	10.	70.	58.0	99.	2.00	.225	.05	.000	
SKY	140.	70.	58.0	99.	2.00	.059	.05	-.002	
TERRAIN	10.	55.	54.6	114.	2.00	.039	.05	.001	
TERRAIN	140.	55.	54.6	114.	2.00	.010	.05	.000	

Figure 7-2. Level-1 Visibility Screening Analysis for SKC: Proposed Conditions



REFERENCES

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- Auer, A.H. 1978. Correlation of Land Use and Cover With Meteorological Anomalies. J. Applied Meteorology, Vol. 17.
- Briggs, G.A. 1971. Some Recent Analyses of Plume Rise Observations. In Proceedings of the Second International Clean Air Congress, Academic Press, New York.
- Briggs, G.A. 1972. Discussion on Chimney Plumes in Neutral and Stable Surroundings. Atmospheric Environment, 6:507-510.
- Briggs, G.A. 1974. Diffusion Estimates for Small Emissions. In FRL, ARL, USAEC Report ATDL-106. U.S. Atomic Energy Commission, Oak Ridge, Tennessee.
- Briggs, G.A. 1975. Plume Rise Predictions. In Lectures on Air Pollution and Environmental Impact Analysis, American Meteorological Society, Boston, Massachusetts.
- Briggs, G.A. 1969. Plume Rise, USAEC Critical Review Services, TID-25075.
- Carlson, R.W. 1979. Reduction in the Photosynthetic Rate of Acer quercus and Fraxinus Species Caused by Sulphur Dioxide and Ozone. Environ. Pollut. 18:159-170.
- Chemical Engineering Plant Cost Index. 1992. Chemical Engineering 99(9):224.
- Florida Department of Environmental Regulation (FDER). 1989, 1990, 1991. Allsum: Comparison of Air Quality Data with the National Ambient Air Quality Standards. Tallahassee, FL.
- Holzworth, G.C. 1972. Mixing Heights, Wind Speeds and Potential for Urban Air Pollution Throughout the Contiguous United States. Pub. No. AP-101. U.S. Environmental Protection Agency.
- Huber, A.H. 1977. Incorporating Building/Terrain Wake Effects on Stack Effluents. Preprint Volume for the Joint Conference on Applications of Air Pollution Meteorology, American Meteorological Society, Boston, Massachusetts.
- Huber, A.H., and W.H. Snyder. 1976. Building Wake Effects on Short Stack Effluents. Preprint Volume for the Third Symposium on Atmospheric Diffusion and Air Quality, American Meteorological Society, Boston, Massachusetts.
- KBN. 1990. Air Quality Impact Analysis, Container Corporation of America, Inc. Prepared for Container Corporation of America. Gainesville, FL.
- KBN Engineering and Applied Sciences, Inc. (KBN). 1992. Mercury Emissions to the Atmosphere in Florida. Prepared for Florida Department of Environmental Regulation, Tallahassee, FL.

REFERENCES
(Page 2 of 3)

- Malhotra, S.S. and A.A. Kahn. 1978. Effect of Sulfur Dioxide Fumigation on Lipid Biosynthesis in Pine Needles. *Phytochemistry* 17:241-244.
- Pasquill, F. 1976. Atmospheric Dispersion Parameters in Gaussian Plume Modeling. Part II. Possible Requirements for Change in the Turner Workbook Values. EPA-800/4-76-0306.
- Pusch, D. 1992. Personal communication. Environmental Engineer of Anheuser Busch. St. Louis, MO.
- Schulman, L.L. and S.R. Hanna, 1986. Evaluation of Downwash Modifications to the Industrial Source Complex Model. *Journal of Air Pollution Control Association*, 36 (3), 258-264.
- Schulman, L.L. and J.S. Scire, 1980. Buoyant Line and Point Source (BLP) Dispersion Model User's Guide. Document P-7304B, Environmental Research and Technology, Inc. Concord, Massachusetts.
- Schulman, L.L. and J.S. Scire, 1980. Buoyant Line and Point Source (BLP) Dispersion Model User's Guide. Document P-7304B, Environmental Research and Technology, Inc. Concord, Massachusetts.
- U.S. Department of Health, Education, and Welfare. 1971. Air Pollution Injury to Vegetation. National Air Pollution Control Administration Publication No. AP-71.
- U.S. Environmental Protection Agency (EPA). 1978. Guidelines for Determining Best Available Control Technology (BACT). Office of Air Quality Planning and Standards. Research Triangle Park, NC.
- U.S. Environmental Protection Agency (EPA). 1981. Emissions Assessment of Conventional Stationary Combustion Systems: Volume V, Industrial Combustion Sources. Prepared by TRW, Inc. EPA 600/7-81-003. Washington, DC.
- U.S. Environmental Protection Agency (EPA). 1982. Air Quality Criteria for Particulate Matter and Sulfur Oxides. Vol. 3. Washington, DC.
- U.S. Environmental Protection Agency (EPA). 1987b. Guideline on Air Quality Models, Supplement A (Revised). EPA-450/2-78-027.
- U.S. Environmental Protection Agency (EPA). 1988a. Workbook for Plume Visual Impact Screening and Analysis. Office of Air Quality. EPA-450/4-83-015. Washington DC.
- U.S. Environmental Protection Agency (EPA). 1988b. EPA's User's Network for Applied Modeling of Air Pollution (UNAMAP), Version 6, Change 3, January 4, 1988. Research Triangle Park, North Carolina.

REFERENCES

(Page 3 of 3)

- U.S. Environmental Protection Agency (EPA). 1989. Estimating Air Toxics Emission from Coal and Oil Combustion Sources. OAQPS, Research Triangle Park, NC. EPA-450/2-89-001.
- U.S. Environmental Protection Agency (EPA). 1990a. Toxic Air Pollutant Emission Factors--A Compilation for Selected Air Toxic Compounds and Sources. Second Edition. Prepared by Radian Corp. EPA-450/2-90-011.
- U.S. Environmental Protection Agency (EPA). 1990b. OAQPS Control Cost Manual (4th Ed.) OAQPS, Research Triangle Park, NC. EPA-450/3-90-006.
- U.S. Environmental Protection Agency (EPA). 1991a. BACT/LAER Information System Printout, dated November 19, 1991.
- U.S. Environmental Protection Agency (EPA). 1991b. Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources (Supplement D) AP-42. Research Triangle Park, NC.
- U.S. Environmental Protection Agency (EPA). 1992b. User's Guide for the Industrial Source Complex (ISC2) Dispersion Models. Office of Air Quality Planning and Standards. EPA-450/4-92-008. Research Triangle Park, NC.
- Woltz, S.S., and T.K. Howe. 1981. Effects of Coal Burning Emissions on Florida Agriculture. In: The Impact of Increased Coal Use in Florida. Interdisciplinary Center for Aeronomy and (other) Atmospheric Sciences. University of Florida, Gainesville, Florida.

APPENDIX A

**DERIVATIONS OF POLLUTANT EMISSION FACTORS
FOR PROPOSED PACKAGE BOILERS**

All pollutant emissions factors used in emission calculations are expressed for fuel oil in terms of lb/10¹²Btu or lb/1000 gal. For natural gas the emission factors are expressed in terms of lb/MM scf/hr or lb/MMBtu. The basis for the emission factors is presented below. All calculated emission rates represent emissions for one boiler.

A. No. 2 Fuel Oil

Heating value of No. 2 Fuel Oil: 138,960 Btu/gal

Density = 7.2 lb/gal

1. PM

The emission factor is based on the estimated maximum ash content of No. 2 fuel oil of 0.1% by weight.

$$\begin{aligned} \text{PM(lb/MMBtu)} &= 7.2 \text{ lb/gal} \times 0.10 \text{ lb PM/100 lb oil} + 138,960 \text{ Btu/gal} \\ &= 0.05 \text{ lb/MMBtu} \end{aligned}$$

$$\text{PM (lb/hr)} = 164.5 \text{ MMBtu/hr} \times 0.05 \text{ lb/MMBtu} = 8.23 \text{ lb/hr}$$

$$\text{PM (TPY)} = 8.23 \text{ lb/hr} \times 8,760 \text{ hr/yr} + 2,000 \text{ lb/ton} = 36.05 \text{ TPY}$$

PM10: Based on AP-42, 50% of PM is PM10 for an uncontrolled industrial boiler.

2. SO₂

The emission factor is based upon the maximum sulfur content of No. 2 distillate fuel oil. The emission factor is based on a maximum of 0.5 lb/MMBtu and an average of 0.3 lb/MMBtu.

Activity Factor= 164.5 MMBtu/hr

$$\text{SO}_2 \text{ (lb/hr)} = 164.5 \text{ MMBtu/hr} \times 0.5 \text{ lb/MMBtu} = 82.3 \text{ lb/hr}$$

Activity Factor= 1.441x10¹² Btu/yr

$$\text{SO}_2 \text{ (TPY)} = 1.441 \times 10^{12} \text{ Btu/yr} \times 0.3 \text{ lb/MMBtu} + 2,000 = 216.2 \text{ TPY}$$

3. NO_x

The emission factor is based on NSPS for Industrial Boilers, 40 CFR 60 Subpart Db: 0.2 lb/MMBtu

Activity Factor= 164.5 MMBtu/hr

$$\text{NO}_x \text{ (lb/hr)} = 0.2 \times 164.5 = 32.9 \text{ lb/hr}$$

Activity Factor= 1.441x10¹² Btu/yr

$$\text{NO}_x \text{ (TPY)} = 0.2 \text{ lb/MMBtu} \times 1.441 \times 10^{12} \text{ Btu/yr} + 2,000 = 144.1 \text{ TPY}$$

4. CO

The emission factor is based upon boiler manufacturer's information: 400 ppm in the exhaust gases.

Activity factor= 53,366 acfm

$$\begin{aligned} \text{CO (lb/hr)} &= 53,366 \text{ acfm} \times 2,116.8 \text{ lb}_f/\text{ft}^2 \times [28 \text{ lb CO/lb-mole CO} + \\ &\quad 1,545 \text{ ft-lb}_f/\text{lb-mole-}^\circ\text{R}] + (345 + 460)^\circ\text{R} \times 60 \text{ min/hr} \\ &\quad \times 400/10^6 \\ &= 61.04 \text{ lb/hr} \end{aligned}$$

5. VOC: The emission factor is based upon AP-42 factor: 0.2 lb/1000 gal

Activity factor= 1,192 gal/hr

$$\text{VOC(lb/hr)} = 0.2 \text{ lb/1000 gal} \times 1,192 \text{ gal/hr} = 0.24 \text{ lb/hr}$$

6. Lead, Beryllium

The emission factors for lead and beryllium were obtained from Toxic Air Pollutant Emission Factors - A Compilation for Selected Air Toxic Compounds and Sources, Second Edition EPA publication 450/2-90-011 (1990a). The uncontrolled emission factors are 8.90×10^{-6} lb/MMBtu and 2.5×10^{-6} lb/MMBtu for lead and beryllium, respectively.

Activity Factor = 164.5 MMBtu/hr

$$\text{Lead (lb/hr)} = 8.9 \times 10^{-6} \times 164.5 = 0.0015 \text{ lb/hr}$$

Sample Activity Factor = 1.441×10^{12} Btu/yr

$$\text{Be (TPY)} = 2.5 \times 10^{-6} \times 1.441 \times 10^{12} + 10^6 + 2,000 = 0.0018 \text{ TPY}$$

7. Hg

The emission factor is based on Mercury Emissions to the Atmosphere in Florida, KBN (1992). The average uncontrolled emission factor is 3.4 lb/10¹² Btu for distillate fuel oil.

8. Fluorides

The emission factor is taken from Emissions Assessment of Conventional Stationary Combustion Systems: Volume V: Industrial Combustion Sources, EPA 450/2-90-011 (1990). The emission factor for fluorides is 32 lb/10¹² Btu.

9. Sulfuric Acid Mist

From the EPA Publication AP-42, sulfuric acid mist emissions for boiler's similar to that of the proposed facility, the emissions are estimated to be 3 percent of the sulfur dioxide emissions. The emission factor = 0.03 x 0.5 lb/MMBtu x 138,960 Btu/gal x 1000/1000 gal = 2.07 lb/1000 gal.

10. Bromine, Hydrogen Chloride, Molybdenum, and Tin

There are no available emission factors for distillate No. 2 fuel oil in the literature. However, emission factors for these pollutants for firing residual No. 6 fuel oil are available from Emission Assessment of

Conventional Stationary Combustion Systems: Volume V, EPA publication EPA-600/7-81-0300c (1981). Use of these factors will provide a conservative estimate of emission factors for distillate oil. These emission factors are presented as pg/J. The emission factors are converted to lb/MMBtu.

$$\text{pg/J} \times 10^{-12} \text{ g/pg} \times 1,055 \text{ J/Btu} \times \text{lb}/454 \text{ g} \times 10^6 \text{ Btu/MMBtu} \\ = 2.324 \times 10^{-6} \text{ lb/MMBtu.}$$

Example: Bromine: $3.0 \text{ pg/J} \times 2.324 \times 10^{-6} = 6.98 \times 10^{-6} \text{ lb/MMBtu}$
 $= 6.98 \text{ lb}/10^{12} \text{ Btu}$

Hydrogen Chloride:	274	pg/J =	637	lb/10 ¹² Btu
Molybdenum:	21	pg/J =	48.8	lb/10 ¹² Btu
Tin:	142	pg/J =	330	lb/10 ¹² Btu

Sample calculation: Activity Factor = 1.441×10^{12} Btu/yr

$$\text{Bromine (TPY)} = 1.441 \times 10^{12} \times 6.98 / 10^{12} + 2,000 = 0.0050 \text{ TPY}$$

11. Barium, Manganese, Phosphorus and Selenium

The emission factors are obtained from Emission Assessment of Conventional Stationary Combustion Systems: Volume V, EPA publication EPA-600/7-81-0300c (1981). The average of two emission factors for a distillate oil fired boiler was taken. These emission factors are presented as pg/J and are converted to lb/10¹² Btu.

Barium:	1.16	pg/J =	2.7	lb/10 ¹² Btu
Manganese:	4.2	pg/J =	9.8	lb/10 ¹² Btu
Phosphorus:	45.8	pg/J =	106.0	lb/10 ¹² Btu
Selenium:	4.8	pg/J =	11.3	lb/10 ¹² Btu

12. Arsenic, Cadmium, Chromium, Copper, Nickel, and Selenium

Emission factors were obtained from Toxic Air Pollutant Emission Factors - A Compilation for Selected Air Toxic Compounds and sources, Second Edition EPA publication 450/2-90-011 (1990a). These emission factors reflect uncontrolled conditions for distillate oil firing and are reported as lb/10¹² Btu.

Arsenic:	4.2	lb/10 ¹² Btu
Cadmium :	10.5	lb/10 ¹² Btu
Chromium:	47.5	lb/10 ¹² Btu
Copper:	280	lb/10 ¹² Btu
Nickel:	170	lb/10 ¹² Btu

Sample calculation: Activity Factor = 1.441×10^{12} Btu/yr

$$\text{Arsenic: } 4.20 \text{ lb}/10^{12} \text{ Btu} \times 1.441 \times 10^{12} \text{ Btu/yr} + 2,000 = 0.0030 \text{ TPY}$$

13. Dioxins and Furans:

No emission factors were available in the literature for dioxins and furans for oil combustion.

C. Natural Gas

1. PM, SO₂, VOC

The emission factors for PM, SO₂, and VOC are obtained from Compilation of Air Pollutant Emission Factors, AP-42 (EPA, 1991b). The emission factors are 5 lb/MM scf, 0.6 lb/MM scf, and 1.4 lb/MM scf for PM, SO₂, and VOC respectively.

Activity Factor = 0.1747 MM scf/hr

$$\text{PM (lb/hr)} = 0.1747 \text{ MM scf/hr} \times 5 \text{ lb/MM scf} = 0.87 \text{ lb/hr}$$

$$\text{SO}_2 \text{ (lb/hr)} = 0.1747 \text{ MM scf/hr} \times 0.6 \text{ lb/MM scf} = 0.10 \text{ lb/hr}$$

$$\text{VOC (lb/hr)} = 0.1747 \text{ MM scf/hr} \times 1.4 \text{ lb/MM scf} = 0.24 \text{ lb/hr}$$

$$\text{VOC (TPY)} = 0.24 \text{ lb VOC/hr} \times 8,760 + 2,000 = 1.1 \text{ TPY}$$

2. NO_x

The emission factor used is based upon the NSPS. The emission factor is 0.2 lb/MMBtu.

Activity Factor = 174.7 MMBtu/hr

$$\text{NO}_x \text{ (lb/hr)}: 0.2 \text{ lb/MMBtu} \times 174.7 \text{ MMBtu/hr} = 17.5 \text{ lb/hr}$$

3. CO

The emission factor used is based upon boiler design. The emission factor is 400 ppm in the exhaust gases.

Activity factor = 53,541 acfm

$$\begin{aligned} \text{CO (lb/hr)} &= 53,541 \text{ acfm} \times 2,116.8 \text{ lb}_f/\text{ft}^2 \times [28 \text{ lb CO/lbmole CO} + \\ &\quad 1,545 \text{ ft-lb}_f/\text{lbmole-}^\circ\text{R}] + (330 + 460)^\circ\text{R} \times 60 \text{ min/hr} \\ &\quad \times 400/10^6 \\ &= 62.40 \text{ lb/hr} \end{aligned}$$

$$\text{CO (TPY)} = 62.40 \text{ lb/hr} \times 8,760 + 2,000 = 273.31 \text{ TPY}$$

4. Hg

The emission factor is obtained from "Mercury Emissions to the Atmosphere in Florida" (KBN, 1992) for an uncontrolled natural gas fired boiler. The average emission factor is 0.014 lb/10¹²Btu.

Activity Factor = 174.7 MMBtu/hr

$$\begin{aligned} \text{Hg (lb/hr)} &= 0.014 \text{ lb}/10^{12} \text{ Btu} \times 174.7 \text{ MMBtu/hr} \\ &= 2.4 \times 10^{-6} \text{ lb/hr} \end{aligned}$$

5. Antimony, Arsenic, Barium, Bromine, Cadmium, Hydrogen Chloride, Chromium, Copper, Indium, Fluorides, Manganese, Molybdenum, Nickel, Phosphorus, Selenium, Silver, Tin, and Zirconium

No emission factors are available in the literature.

TABLE 1.3-1. UNCONTROLLED EMISSION FACTORS FOR FUEL OIL COMBUSTION

EMISSION FACTOR RATING: A

Boiler Type ^a	Particulate ^b Matter		Sulfur Dioxide ^c		Sulfur Trioxide		Carbon Monoxide ^d		Nitrogen Oxide ^e		Volatile Organics ^f			
	kg/10 ³ l	lb/10 ³ gal	kg/10 ³ l	lb/10 ³ gal	kg/10 ³ l	lb/10 ³ gal	kg/10 ³ l	lb/10 ³ gal	kg/10 ³ l	lb/10 ³ gal	Nonmethane		Methane	
	kg/10 ³ l	lb/10 ³ gal	kg/10 ³ l	lb/10 ³ gal	kg/10 ³ l	lb/10 ³ gal	kg/10 ³ l	lb/10 ³ gal	kg/10 ³ l	lb/10 ³ gal	kg/10 ³ l	lb/10 ³ gal	kg/10 ³ l	lb/10 ³ gal
Utility Boilers Residual Oil	g	g	19S	157S	0.34S ^h	2.9S ^h	0.6	5	8.0 (12.6)(5) ⁱ	67 (105)(42) ⁱ	0.09	0.76	0.03	0.28
Industrial Boilers Residual Oil	g	g	19S	157S	0.24S	2S	0.6	5	6.6 ^j	55 ^j	0.034	0.28	0.12	1.0
Distillate Oil	0.24	2	17S	142S	0.24S	2S	0.6	5	2.4	20	0.024	0.2	0.006	0.052
Commercial Boilers Residual Oil	g	g	19S	157S	0.24S	2S	0.6	5	6.6	55	0.14	1.13	0.057	0.475
Distillate Oil	0.24	2	17S	142S	0.24S	2S	0.6	5	2.4	20	0.04	0.34	0.026	0.216
Residential Furnaces Distillate Oil	0.3	2.5	17S	142S	0.24S	2S	0.6	5	2.2	18	0.085	0.713	0.214	1.78

^aBoilers can be approximately classified according to their gross (higher) heat rate as shown below:

Utility (power plant) boilers: >106 x 10⁹ J/hr (>100 x 10⁶ Btu/hr)
 Industrial boilers: 10.6 x 10⁹ to 106 x 10⁹ J/hr (10 x 10⁶ to 100 x 10⁶ Btu/hr)
 Commercial boilers: 0.5 x 10⁹ to 10.6 x 10⁹ J/hr (0.5 x 10⁶ to 10 x 10⁶ Btu/hr)
 Residential furnaces: <0.5 x 10⁹ J/hr (<0.5 x 10⁶ Btu/hr)

^bReferences 3-7 and 24-25. Particulate matter is defined in this section as that material collected by EPA Method 5 (front half catch).

^cReferences 1-5. S indicates that the weight % of sulfur in the oil should be multiplied by the value given.

^dReferences 3-5 and 8-10. Carbon monoxide emissions may increase by factors of 10 to 100 if the unit is improperly operated or not well maintained.

^eExpressed as NO₂. References 1-5, 8-11, 17 and 26. Test results indicate that at least 95% by weight of NO_x is NO for all boiler types except residential furnaces, where about 75% is NO.

^fReferences 18-21. Volatile organic compound emissions are generally negligible unless boiler is improperly operated or not well maintained, in which case emissions may increase by several orders of magnitude.

^gParticulate emission factors for residual oil combustion are, on average, a function of fuel oil grade and sulfur content:

Grade 6 oil: 1.25(S) + 0.38 kg/10³ liter [10(S) + 3 lb/10³ gal] where S is the weight % of sulfur in the oil. This relationship is based on 81 individual tests and has a correlation coefficient of 0.65.
 Grade 5 oil: 1.25 kg/10³ liter (10 lb/10³ gal)
 Grade 4 oil: 0.88 kg/10³ liter (7 lb/10³ gal)

^hReference 25.

ⁱUse 5 kg/10³ liters (42 lb/10³ gal) for tangentially fired boilers, 12.6 kg/10³ liters (105 lb/10³ gal) for vertical fired boilers, and 8.0 kg/10³ liters (67 lb/10³ gal) for all others, at full load and normal (>15%) excess air. Several combustion modifications can be employed for NO_x reduction: (1) limited excess air can reduce NO_x emissions 5-20%, (2) staged combustion 20-40%, (3) using low NO_x burners 20-50%, and (4) ammonia injection can reduce NO_x emissions 40-70% but may increase emissions of ammonia. Combinations of these modifications have been employed for further reductions in certain boilers. See Reference 23 for a discussion of these and other NO_x reducing techniques and their operational and environmental impacts.

^jNitrogen oxides emissions from residual oil combustion in industrial and commercial boilers are strongly related to fuel nitrogen content, estimated more accurately by the empirical relationship:

kg NO₂/10³ liters = 2.75 + 50(N)² [1b NO₂/10³ gal = 22 + 400(N)²] where N is the weight % of nitrogen in the oil. For residual oils having high (>0.5 weight %) nitrogen content, use 15 kg NO₂/10³ liter (120 lb NO₂/10³ gal) as an emission factor.

TABLE 1.3-4. CUMULATIVE PARTICLE SIZE DISTRIBUTION AND SIZE SPECIFIC EMISSION FACTORS FOR UNCONTROLLED INDUSTRIAL BOILERS FIRING DISTILLATE OIL^a

EMISSION FACTOR RATING: E

Particle size ^b (μm)	Cumulative mass % \leq stated size	Cumulative emission factor $\text{kg}/10^3 \text{ l}$ ($1\text{b}/10^3 \text{ gal}$)
	Uncontrolled	Uncontrolled
15	68	0.16 (1.33)
10	50	0.12 (1.00)
6	30	0.07 (0.58)
2.5	12	0.03 (0.25)
1.25	9	0.02 (0.17)
1.00	8	0.02 (0.17)
0.625	2	0.005 (0.04)
TOTAL	100	0.24 (2.00)

^aReference 29.

^bExpressed as aerodynamic equivalent diameter.

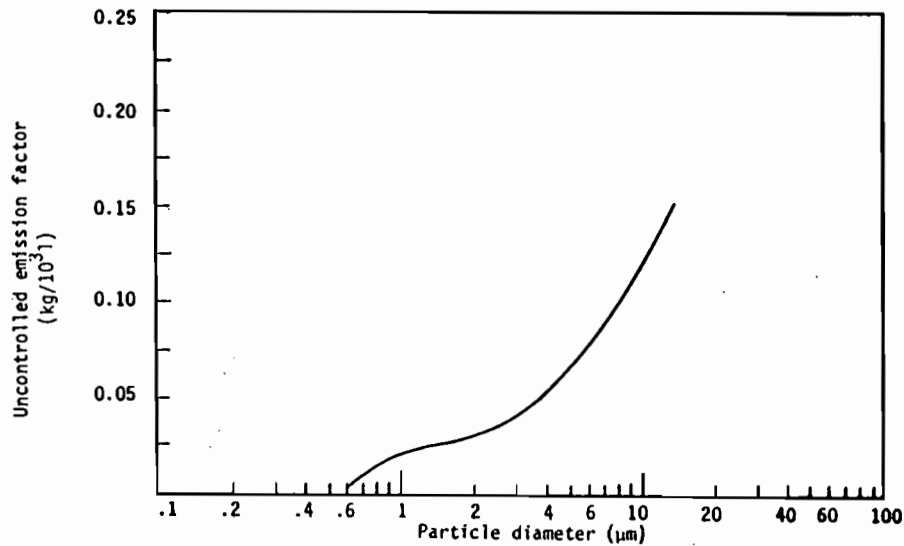


Figure 1.3-3. Cumulative size specific emission factors for uncontrolled industrial boilers firing distillate oil.

TABLE 1.4-1. UNCONTROLLED EMISSION FACTORS FOR NATURAL GAS COMBUSTION^a

Furnace size & type (10 ⁶ Btu/hr heat input)	Particulate ^b		Sulfur dioxide ^c		Nitrogen oxides ^d		Carbon monoxide ^e		Volatile organics			
									Nonmethane		Methane	
	kg/10 ⁶ m ³	lb/10 ⁶ ft ³	kg/10 ⁶ m ³	lb/10 ⁶ ft ³	kg/10 ⁶ m ³	lb/10 ⁶ ft ³	kg/10 ⁶ m ³	lb/10 ⁶ ft ³	kg/10 ⁶ m ³	lb/10 ⁶ ft ³	kg/10 ⁶ m ³	lb/10 ⁶ ft ³
Utility boilers (> 100)	16 - 80	1 - 5	9.6	0.6	8800 ^h	550 ^h	640	40	23	1.4	4.8	0.3
Industrial boilers (10 - 100)	16 - 80	1 - 5	9.6	0.6	2240	140	560	35	44	2.8	48	3
Domestic and commercial boilers (< 10)	16 - 80	1 - 5	9.6	0.6	1600	100	320	20	84	5.3	43	2.7

^aExpressed as weight/volume fuel fired.

^bReferences 15-18.

^cReference 4. Based on avg. sulfur content of natural gas, 4600 g/10⁶ Nm³ (2000 gr/10⁶ scf).

^dReferences 4-5, 7-8, 11, 14, 18-19, 21.

^eExpressed as NO_x. Tests indicate about 95 weight % NO_x is NO₂.

^fReferences 4, 7-8, 16, 18, 22-25.

^gReferences 16, 18. May increase 10 - 100 times with improper operation or maintenance.

^hFor tangentially fired units, use 4400 kg/10⁶ m³ (275 lb/10⁶ ft³). At reduced loads, multiply factor by load reduction coefficient in Figure 1.4-1. For potential NO_x reductions by combustion modification, see text. Note that NO_x reduction from these modifications will also occur at reduced load conditions.

PB91-126003

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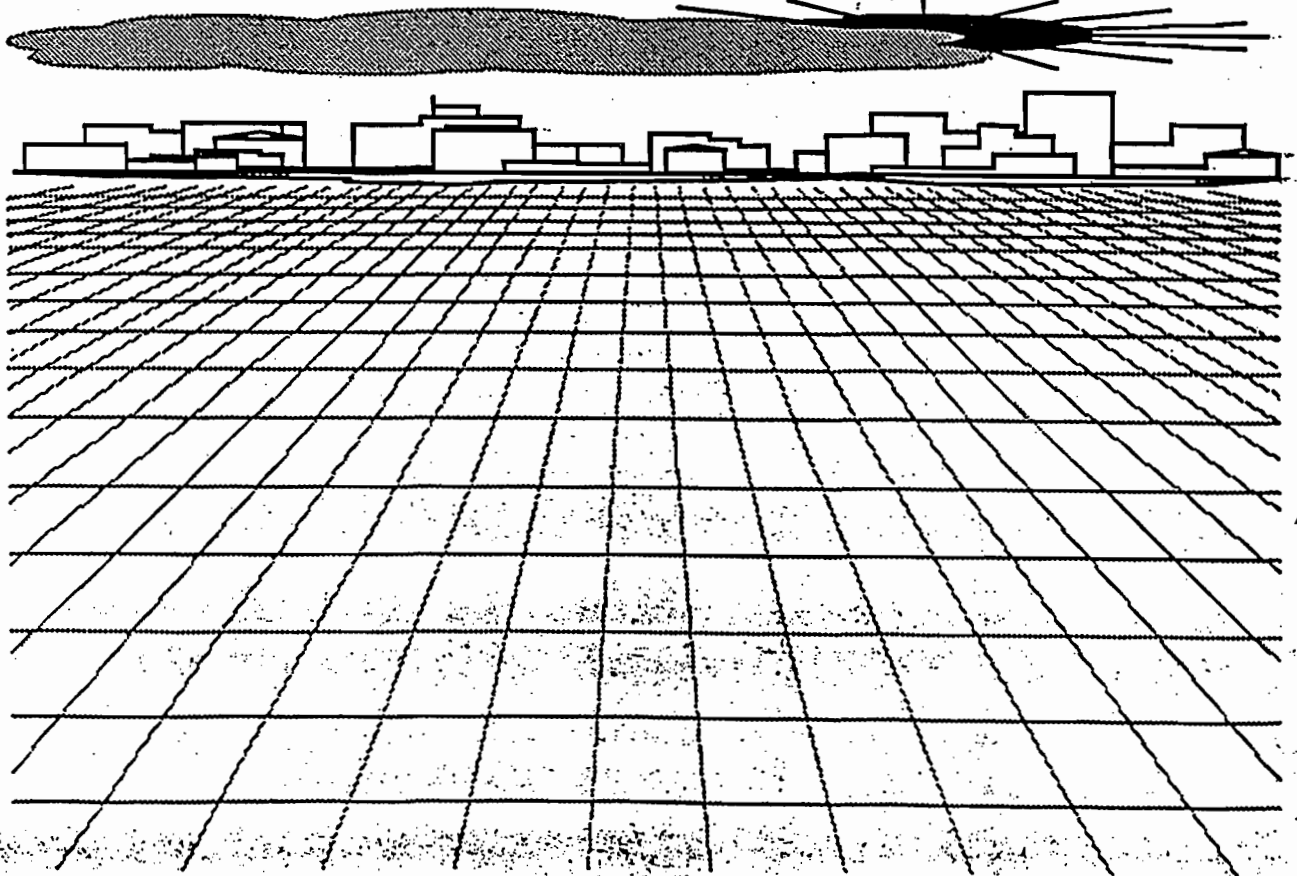
Office of Air Quality
Planning And Standards
Research Triangle Park, NC 27711

EPA-450/2-90-011
October 1990

AIR



TOXIC AIR POLLUTANT EMISSION FACTORS - A COMPILATION FOR SELECTED AIR TOXIC COMPOUNDS AND SOURCES, SECOND EDITION



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INDUSTRIAL PROCESS	SIC CODE	EMISSION SOURCE	SCC CODE	POLLUTANT	CAS NUMBER	EMISSION FACTOR	NOTES	REFERENCE
Nonferrous metals production	3341	Melt furnace at permanent magnet alloy facility	304	Nickel	7440020	2 lb/ton of nickel charged	Controlled by fabric filter, based on engineering judgement	110
Nonferrous metals production	3341	Melt furnace at superalloy facility	304	Nickel	7440020	2 lb/ton of nickel charged	Controlled by fabric filter, based on engineering judgement	110
Benzophenone production	2849	Fugitive emissions	301	Phenol	108952	0.38 lb/ton used	From engineering estimates	13
Benzophenone production	2849	General emissions	301	Phenol	108952	1.6 lb/ton used	From engineering estimates	13
Benzophenone production	2849	Storage	407084	Phenol	108952	0.02 lb/ton used	From engineering estimates	13
Oil and coal combustion	49	Stack - particulate	102	Polychlorinated dibenzo-p-dioxins, total		$1.36 \times 10E-4$ lb/ton	No penta homologue included, one location, TCDD detection = $4 \times 10E-5$ lb/ton	119
Oil and coal combustion	49	Stack - particulate	102	2,3,7,8-Tetrachlorodibenz o-p-dioxin	1746016	Not detectable	One location, detection limit = $2 \times 10E-5$ lb/ton	119
Oil combustion		Fuel oil		Arsenic	7664417	0.8 lb/1000 gallons fuel oil burned	Sources emitting > 100 tons MGD/year	179
* Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Arsenic	7440382	<u>4.2 lb/10E12 Btu</u>	Uncontrolled, calculated based on engineering judgement	34
Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Arsenic	7440382	2.04 lb/10E12 Btu	Controlled with multiclones, calculated based on engineering judgement	34
Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Arsenic	7440382	0.80 lb/10E12 Btu	Controlled with ESP, calculated based on engineering judgement	34
Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Arsenic	7440382	0.42 lb/10E12 Btu	Controlled with scrubber, calculated based on engineering judgement	34
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Arsenic	7440382	19 lb/10E12 Btu	Uncontrolled, calculated based on engineering judgement	34
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Arsenic	7440382	9.31 lb/10E12 Btu	Controlled with multiclones, calculated based on engineering judgement	34

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INDUSTRIAL PROCESS	SIC CODE	EMISSION SOURCE	SCC CODE	POLLUTANT	CAS NUMBER	EMISSION FACTOR	NOTES	REFERENCE
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Arsenic	7440382	2.28 lb/10E12 Btu	Controlled with ESP, calculated based on engineering judgement	34
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Arsenic	7440382	1.90 lb/10E12 Btu	Controlled with scrubber, calculated based on engineering judgement	34
* Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Beryllium	7440417	<u>2.8 lb/10E12 Btu</u>	Uncontrolled, calculated based on engineering judgement	34
Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Beryllium	7440417	1.88 lb/10E12 Btu	Controlled with multiclones, calculated based on engineering judgement	34
Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Beryllium	7440417	0.35 lb/10E12 Btu	Controlled with ESP, calculated based on engineering judgement	34
Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Beryllium	7440417	0.18 lb/10E12 Btu	Controlled with scrubber, calculated based on engineering judgement	34
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Beryllium	7440417	4.2 lb/10E12 Btu	Uncontrolled, calculated based on engineering judgement	34
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Beryllium	7440417	2.45 lb/10E12 Btu	Controlled with multiclones, calculated based on engineering judgement	34
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Beryllium	7440417	0.39 lb/10E12 Btu	Controlled with ESP, calculated based on engineering judgement	34
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Beryllium	7440417	0.25 lb/10E12 Btu	Controlled with scrubber, calculated based on engineering judgement	34
* Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Cadmium	7440439	<u>10.3 lb/10E12 Btu</u>	Uncontrolled, calculated based on engineering judgement	34

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INDUSTRIAL PROCESS	SIC CODE	EMISSION SOURCE	BCC CODE	POLLUTANT	CAS NUMBER	EMISSION FACTOR	NOTES	REFERENCE
Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Cadmium	7440439	7.48 lb/10E12 Btu	Controlled with multiclones, calculated based on engineering judgement	34
Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Cadmium	7440439	1.58 lb/10E12 Btu	Controlled with ESP, calculated based on engineering judgement	34
Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Cadmium	7440439	0.63 lb/10E12 Btu	Controlled with scrubber, calculated based on engineering judgement	34
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Cadmium	7440439	15.7 lb/10E12 Btu	Uncontrolled, calculated based on engineering judgement	34
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Cadmium	7440439	46.84 lb/10E12 Btu	Controlled with multiclones, calculated based on engineering judgement	34
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Cadmium	7440439	9.90 lb/10E12 Btu	Controlled with ESP, calculated based on engineering judgement	34
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Cadmium	7440439	3.96 lb/10E12 Btu	Controlled with scrubber, calculated based on engineering judgement	34
* Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Chromium	7440473	<u>47.8 lb/10E12 Btu</u>	Uncontrolled, calculated based on engineering judgement	34
Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Chromium	7440473	27.8 lb/10E12 Btu	Controlled with multiclones, calculated based on engineering judgement	34
Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Chromium	7440473	13.92 lb/10E12 Btu	Controlled with ESP, calculated based on engineering judgement	34
Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Chromium	7440473	3.84 lb/10E12 Btu	Controlled with scrubber, calculated based on engineering judgement	34

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INDUSTRIAL PROCESS	SIC CODE	EMISSION SOURCE	SCC CODE	POLLUTANT	CAS NUMBER	EMISSION FACTOR	NOTES	REFERENCE
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Chromium	7440473	21 lb/10E12 Btu	Uncontrolled, calculated based on engineering judgement	34
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Chromium	7440473	12.18 lb/10E12 Btu	Controlled with multiclones, calculated based on engineering judgement	34
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Chromium	7440473	6.09 lb/10E12 Btu	Controlled with ESP, calculated based on engineering judgement	34
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Chromium	7440473	1.68 lb/10E12 Btu	Controlled with scrubber, calculated based on engineering judgement	34
* Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Copper	7440508	290 lb/10E12 Btu	Uncontrolled, calculated based on engineering judgement	34
Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Copper	7440508	145.2 lb/10E12 Btu	Controlled with multiclones, calculated based on engineering judgement	34
Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Copper	7440508	42 lb/10E12 Btu	Controlled with ESP, calculated based on engineering judgement	34
Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Copper	7440508	25.2 lb/10E12 Btu	Controlled with scrubber, calculated based on engineering judgement	34
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Copper	7440508	278 lb/10E12 Btu	Uncontrolled, calculated based on engineering judgement	34
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Copper	7440508	165.2 lb/10E12 Btu	Controlled with multiclones, calculated based on engineering judgement	34
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Copper	7440508	42.0 lb/10E12 Btu	Controlled with ESP, calculated based on engineering judgement	34

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INDUSTRIAL PROCESS	SIC CODE	EMISSION SOURCE	SCC CODE	POLLUTANT	CAS NUMBER	EMISSION FACTOR	NOTES	REFERENCE
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Copper	7440508	25.2 lb/10E12 Btu	Controlled with scrubber, calculated based on engineering judgement	34
Oil combustion		Oil-fired boiler or furnace, util/commerc/industr/residential	1	Formaldehyde	50000	405 lb/10E12 Btu	Uncontrolled, based on emissions testing	34
* Oil combustion		Industrial, commercial, and residential boilers	1	Lead	7439921	<u>8.9 lb/10E12 Btu</u>	Uncontrolled, calculated based on engineering judgement, assumed use distillate oil	34
Oil combustion		Utility boiler	101004	Lead	7439921	28 lb/10E12 Btu	Uncontrolled, calculated based on engineering judgement, assumed use residual oil	34
Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Manganese	7439945	14 lb/10E12 Btu	Controlled with scrubber, calculated based on engineering judgement	34
Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Manganese	7439945	6.44 lb/10E12 Btu	Controlled with multiclones, calculated based on engineering judgement	34
Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Manganese	7439945	3.08 lb/10E12 Btu	Controlled with ESP, calculated based on engineering judgement	34
Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Manganese	7439945	1.54 lb/10E12 Btu	Controlled with scrubber, calculated based on engineering judgement	34
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Manganese	7439945	26 lb/10E12 Btu	Uncontrolled, calculated based on engineering judgement	34
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Manganese	7439945	11.96 lb/10E12 Btu	Controlled with multiclones, calculated based on engineering judgement	34
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Manganese	7439945	5.72 lb/10E12 Btu	Controlled with ESP, calculated based on engineering judgement	34

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INDUSTRIAL PROCESS	SIC CODE	EMISSION SOURCE	SCC CODE	POLLUTANT	CAS NUMBER	EMISSION FACTOR	NOTES	REFERENCE
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Manganese	7439948	2.06 lb/10E12 Btu	Controlled with scrubber, calculated based on engineering judgement	34
Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Mercury	7439976	3.0 lb/10E12 Btu	Uncontrolled, based on engineering judgement	34
Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Mercury	7439976	3.0 lb/10E12 Btu	Controlled by multiclones, based on engineering judgement	34
Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Mercury	7439976	2.25 lb/10E12 Btu	Controlled by ESP, based on engineering judgement	34
Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Mercury	7439976	0.78 lb/10E12 Btu	Controlled by scrubber, based on engineering judgement	34
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Mercury	7439976	3.2 lb/10E12 Btu	Uncontrolled, based on engineering judgement	34
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Mercury	7439976	3.2 lb/10E12 Btu	Controlled by multiclones, based on engineering judgement	34
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Mercury	7439976	2.4 lb/10E12 Btu	Controlled by ESP, based on engineering judgement	34
Oil combustion		Residual oil-fired boiler, util/commerc/industr/residential	1	Mercury	7439976	0.83 lb/10E12 Btu	Controlled by scrubber, based on engineering judgement	34
* Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Nickel	7440020	170 lb/10E12 Btu	Uncontrolled, based on engineering judgement	34
Oil combustion		Distillate oil-fired boiler, util/commerc/industr/residential	1	Nickel	7440020	86.7 lb/10E12 Btu	Controlled by multiclones, based on engineering judgement	34

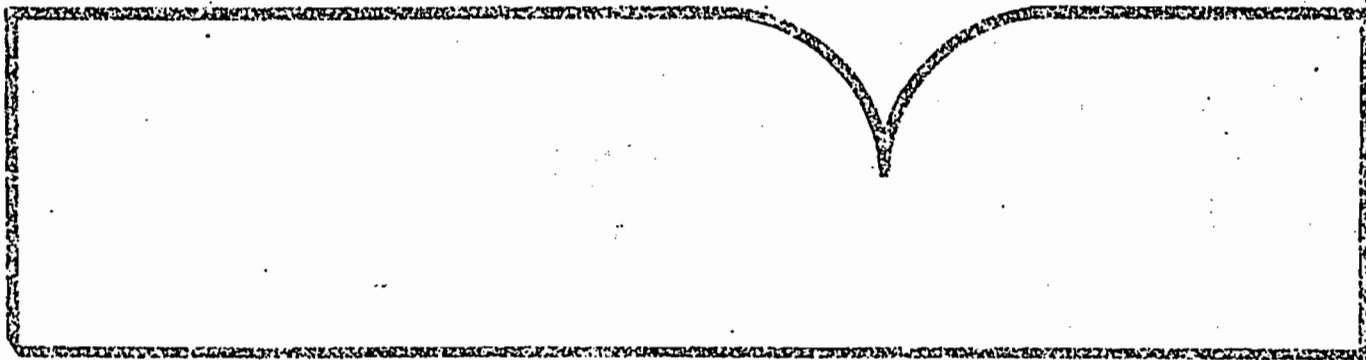
Emissions Assessment of Conventional Stationary
Combustion Systems: Volume V: Industrial
Combustion Sources

TRW, Inc.
Redondo Beach, CA

Prepared for

Industrial Environmental Research Lab.
Research Triangle Park, NC

1981



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TABLE 18. TRACE ELEMENT EMISSION FACTORS AND MEAN AMBIENT SEVERITY FACTORS FOR RESIDUAL OIL-FIRED INDUSTRIAL BOILERS

Trace element	Concentration (ppm)	Emission factor (pg/J)	Ambient ^a severity factor
Aluminum (Al)	3.8	87	0.002
Arsenic (As)	0.8	18	1.1
Boron (B)	0.41	9.4	<0.001
Barium (Ba)	1.26	28.8	0.008
Beryllium (Be)	0.08	1.8	0.11
+ Bromine (Br)	0.13	3.0	<0.001
Calcium (Ca)	14	320	0.002
Cadmium (Cd)	2.27	51.9	0.64
+ Chlorine (Cl)	12	274	0.012
Cobalt (Co)	2.21	50.5	0.12
Chromium (Cr)	1.3	30	2.7
Copper (Cu)	2.8	64	0.638
Fluorine (F)	0.12	2.7	<0.001
Iron (Fe)	14	411	0.05
Mercury (Hg)	0.04	0.9	0.002
Potassium (K)	34	777	0.48
Lithium (Li)	0.06	1.4	0.006
Magnesium (Mg)	13	297	0.006
Manganese (Mn)	1.33	30.4	<0.001
+ Molybdenum (Mo)	0.9	21	<0.081
Sodium (Na)	31	708	0.034
Nickel (Ni)	42.2	964	7.8
Phosphorus (P)	1.1	25	0.004
Lead (Pb)	3.5	80	0.066
Antimony (Sb)	0.44	10	0.002
Selenium (Se)	0.7	16	0.010
Silicon (Si)	17.5	400	0.004
+ Tin (Sn)	6.2	142	0.004
Strontium (Sr)	0.15	3.4	<0.001
Thorium (Th)	<0.001	0.02	<0.001
Uranium (U)	0.7	16	0.22
Vanadium (V)	160	3656	0.90
Zinc (Zn)	1.26	28.8	<0.001

^aBased on a firing rate of 50×10^9 J/hr.

TABLE 60. TRACE ELEMENT EMISSION FACTORS AND AMBIENT SEVERITY FACTORS FOR THE OIL-FIRED COMBUSTION SOURCES TESTED

Trace element	Distillate oil-fired boilers			Residual oil-fired boilers					
	Site 170/172	Site 173/174	Ambient severity factor ^a	Site 152	Site 153	Site 160/163	Site 201/202	Variability $ts(\bar{x})/\bar{x}$	Ambient severity factor ^b
	Emission factor (pg/J)	Emission factor (pg/J)		Emission factor (pg/J)	Emission factor (pg/J)	Emission factor (pg/J)	Emission factor (pg/J)		
Aluminum (Al)	175	182	0.004	101	234	195	150	0.54	0.005
Arsenic (As)	2.2	4.8	0.012	LB	LB	1.2	9.4	—	<0.001
Boron (B)	0.09	0.62	<0.001	LB	0.60	LB	12.0	—	<0.001
* Barium (Ba)	0.22	116 2.1	<0.001	3.3	LB	LB	—	—	<0.001
Beryllium (Be)	0.02	0.02	0.001	LB	LB	0.02	0.3	—	0.018
Calcium (Ca)	37.7	114	0.006	166	432	88.4	22.0	1.9	0.009
Cadmium (Cd)	LB	1.3	0.003	LB	LB	0.66	21.0	—	0.0051
Cobalt (Co)	0.73	6.8	0.017	13.0	13.2	7.9	3.8	0.65	0.038
Chromium (Cr)	23.8	24.4	0.069	47.4	36.0	4.4	5.7	1.9	0.165
Copper (Cu)	6.7	68.4	0.0008	LB	LB	29.2	2.0	—	0.004
Iron (Fe)	106	661	0.016	LB	25.2	141	88	—	0.0003
Mercury (Hg)	—	—	—	—	—	—	0.1	—	<0.001
Potassium (K)	21.5	148	0.009	190	312	280	—	0.6	0.016
Lithium (Li)	0.04	0.98	0.005	0.24	1.4	0.56	—	2.0	0.014
Magnesium (Mg)	20.7	62.5	<0.001	15.4	32.4	LB	9.4	—	<0.001
* Manganese (Mn)	3.0	4.2 5.4	<0.001	8.8	14.4	2.0	1.3	1.5	<0.001
Sodium (Na)	60.8	62.5	0.003	853	576	2276	—	1.8	0.17
Nickel (Ni)	44.5	460	0.57	735	1056	393	63	0.63	1.45

(continued)

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TABLE 60 (continued)

Trace element	Distillate oil-fired boilers				Residual oil-fired boilers					
	Site 170/172		Site 173/174		Site 152	Site 153	Site 160/163		Site 201/202	
	Emission factor (pg/J)	Emission factor (pg/J)	Ambient severity factor ^a	Emission factor (pg/J)			Emission factor (pg/J)	Emission factor (pg/J)	Emission factor (pg/J)	Variability $ts(\bar{x})/\bar{x}$
* Phosphorus (P)	29.5	45.8	62.0	0.076	13.0	13.2	26.5	—	1.1	0.045
Lead (Pb)	22.2	25.1		0.020	LB	LB	2.0	4.1	—	0.003
Antimony (Sb)	LB	LB		—	0.12	LB	LB	1.9	—	<0.001
* Selenium (Se)	3.3	4.8	6.4	0.004	3.9	7.2	0.02	2.0	2.4	0.008
Silicon (Si)	475	994		0.012	16,590	720	LB	0.3	—	0.20
Strontium (Sr)	1.9	4.4		<0.001	3.8	8.6	LB	—	—	<0.001
Uranium (U)	LB	LB		—	LB	LB	LB	—	—	—
Vanadium (V)	1.3	388		0.095	332	648	1.7	260	1.8	0.25
Zinc (Zn)	26.0	58.6		0.002	19.7	80.4	LB	20	—	0.002

^aBased on the maximum emission factor for each element.

^bBased on maximum value; upper bound value if variability exceeds 0.7.

— = Not measured.

LB = Lower than blank value.

**MERCURY EMISSIONS TO THE
ATMOSPHERE IN FLORIDA**

FINAL REPORT

Prepared For:

**Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399**

Prepared By:

**KBN Engineering and Applied Sciences, Inc.
1034 NW 57th Street
Gainesville, Florida 32605**

**August 1992
91166C1**

Table 2.2-2. Mercury Emission Factors Used for Florida Electric Utility Sources

Fuel	Removal	Units	Emission Factor		
			Low	Average	High
Coal-Uncontrolled	NA	lb/10 ¹² Btu ^a	10	16	21
		lb/Mton	0.25	0.42	0.546
w/ESP	25%	lb/10 ¹² Btu	7.2	12.0	15.6
		lb/Mton	0.19	0.32	0.41
w/Scrubber	70%	lb/10 ¹² Btu	2.9	4.8	6.3
		lb/Mton	0.08	0.13	0.16
Residual Oil	NA	lb/10 ¹² Btu	0.4	3.6	9.3
		lb/10 ³ gal ^b	5.79E-05	5.46E-04	1.41E-03
Distillate Oil	NA	lb/10 ¹² Btu	0.4	3.4	8.8
		lb/10 ³ gal ^c	4.99E-05	4.71E-04	1.21E-03
Natural Gas	NA	lb/10 ¹² Btu ^d	0.001	0.014	0.027
		lb/MMcf	1.25E-06	1.44E-05	2.75E-05

Note: NA = not applicable.

Units: M = 1,000

^a Calculated based on 13,100 Btu/lb coal.

^b Calculated based on 18,500 Btu/lb and 8.2 lb/gal.

^c Calculated based on 19,500 Btu/lb and 7.1 lb/gal.

^d Calculated based on 1,024 Btu/scf.

Source: KBN, 1992.

APPENDIX B

**APPLICATION TO OPERATE/CONSTRUCT
AIR POLLUTION SOURCES**

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

7500 pd.
11-24-92
Receipt # K80819



AC16-222359
PSD-FL-198

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Package Boiler New¹ Existing¹
APPLICATION TYPE: Construction Operation Modification
COMPANY NAME: Seminole Kraft Corporation COUNTY: Duval
Identify the specific emission point source(s) addressed in this application (i.e., Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) No. 1 Package Boiler
SOURCE LOCATION: Street 9469 Eastport Road City Jacksonville
UTM: East Zone 17: 441.8 North 3,365.6
Latitude 30° 25' 15" N Longitude 81° 36' 00" W
APPLICANT NAME AND TITLE: L.A. Stanley, General Manager
APPLICANT ADDRESS: 9469 East Port Road, Jacksonville, FL 32229

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Seminole Kraft Corp.

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

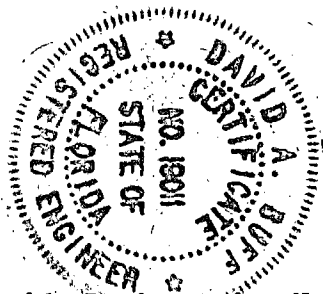
*Attach letter of authorization

Signed: *L.A. Stanley*
L.A. Stanley, General Manager
Name and Title (Please Type)
Date: 11/20/92 Telephone No. (904) 751-6400

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)
This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgement, that

¹See Florida Administration Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed David A. Buff

David A. Buff
Name (Please Type)

KBN Engineering and Applied Sciences, Inc.
Company Name (Please Type)

1034 N.W. 57th Street, Gainesville, FL 32605
Mailing Address (Please Type)

Florida Registration No. 19011 Date: 11/18/92 Telephone No. (904) 331-9000

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Refer to PSD Report

B. Schedule of project covered in this application (Construction Permit Application Only)
Start of Construction April 1, 1993 Completion of Construction December 31, 1993

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

Not Applicable

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

Not Applicable.

E. Requested permitted equipment operating time: hrs/day 24; days/wk 7; wks/yr 52;
If power plant, hrs/yr _____; if seasonal, describe: _____

F. If this is a new source or major modification, answer the following questions.
(Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? Yes
 - a. If yes, has "offset" been applied? No
 - b. If yes, has "Lowest Achievable Emission Rate" been applied? No
 - c. If yes, list non-attainment pollutants. Ozone
2. Does best available control technology (BACT) apply to this source?
If yes, see Section VI. Yes
3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. Yes
4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? Yes
5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? No

- H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? No
- a. If yes, for what pollutants? _____
 - b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
	<i>Not applicable</i>			

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): *Not applicable*

2. Product Weight (lbs/hr): *Not applicable*

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed ² Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
	<i>See Section 2.0 of</i>						
	<i>PSD Report</i>						

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
<i>Not Applicable</i>				

E. Fuels (Each Package Boiler)

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
<i>No. 2 Fuel Oil</i>	-	<i>1,192 gal/hr</i>	<i>164.5</i>
<i>Natural Gas</i>	-	<i>174,700 scf/hr</i>	<i>174.7</i>

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, others--lbs/hr.

Fuel Analysis: Refer to Section 2.0 of PSD Report

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average N/A Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

The small amount of liquid wastes generated will be treated in the plant wastewater treatment system.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 200 ft. Stack Diameter: 8.0 ft.
 Gas Flow Rate: 53,366 ACFM 31,502 DSCFM Gas Exit Temperature: 330 °F.
 Water Vapor Content: 10 % Velocity: 53 FPS

SECTION IV: INCINERATOR INFORMATION

Not Applicable

Type of Waste	Type 0 (Plastics)	Type II (Rubbish)	Type III (Refuse)	Type IV (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____
 Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____
 Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____
 Manufacturer _____
 Date Constructed _____ Model No. _____

	Volume (ft) ³	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp. _____
 Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control devices: Cyclone Wet Scrubber Afterburner
 Other (specify) _____

Brief description of operating characteristics of control devices: _____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
Not applicable
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods, 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
See Section 2.0 of PSD Report
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
See Section 2.0 of PSD Report
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
Not Applicable
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
Not Applicable
6. An 8 ½" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
Not applicable
7. An 8 ½" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Examples: Copy of relevant portion of USGS topographic map).
See Section 2.0 of PSD Report
8. An 8 ½" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.
See Section 2.0 of PSD Report

- 9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
- 10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY
See PSD Report

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes No

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

Yes No

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

D. Describe the existing control and treatment technology (if any).

- | | |
|---------------------------|--------------------------|
| 1. Control Device/System: | 2. Operating Principles: |
| 3. Efficiency:* | 4. Capital Costs: |

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

- a. Height: ft.
- b. Diameter ft.
- c. Flow Rate: ACFM
- d. Temperature: °F.
- e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

- a. Control Devices:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

- 1. Control Device:
- 2. Efficiency:¹
- 3. Capital Cost:
- 4. Useful Life:
- 5. Operating Cost:
- 6. Energy:²
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:
 - a. (1) Company:
 - (2) Mailing Address:
 - (3) City:
 - (4) State:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant

Rate or Concentration

(8) Process Rate:¹

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant

Rate or Concentration

(8) Process Rate:¹

10. Reason for selection and description of systems:

¹Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

Refer to PSD Report

A. Company Monitored Data

1. _____ no. sites _____ TSP _____ () SO²* _____ Wind spd/dir

Period of Monitoring _____ / _____ / _____ to _____ / _____ / _____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

- a. Was instrumentation EPA referenced or its equivalent? [] Yes [] No
- b. Was instrumentation calibrated in accordance with Department procedures?
[] Yes [] No [] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from _____ / _____ / _____ to _____ / _____ / _____
month day year month day year
2. Surface data obtained from (location) _____
3. Upper air (mixing height) data obtained from (location) _____
4. Stability wind rose (STAR) data obtained from (location) _____

C. Computer Models Used

1. _____ Modified? If yes, attach description.
2. _____ Modified? If yes, attach description.
3. _____ Modified? If yes, attach description.
4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO ²	_____ grams/sec

E. Emission Data Used in Modeling

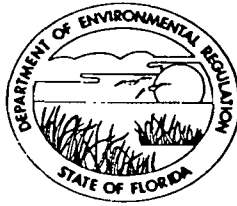
Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e, jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION



APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Package Boiler [x] New¹ [] Existing¹
APPLICATION TYPE: [x] Construction [] Operation [] Modification
COMPANY NAME: Seminole Kraft Corporation COUNTY: Duval
Identify the specific emission point source(s) addressed in this application (i.e., Lime
Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) No. 2*Package Boiler
SOURCE LOCATION: Street 9469 Eastport Road City Jacksonville
UTM: East Zone 17: 441.8 North 3,365.6
Latitude 30 ° 25 ' 15 "N Longitude 81 ° 36 ' 00 "W
APPLICANT NAME AND TITLE: L.A. Stanley, General Manager
APPLICANT ADDRESS: 9469 East Port Road, Jacksonville, FL 32229

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Seminole Kraft Corp.

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: 

L.A. Stanley, General Manager

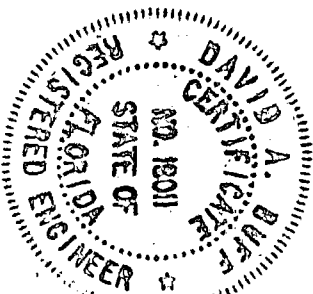
Name and Title (Please Type)

Date: 11/20/92 Telephone No. (904) 751-6400

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)
This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgement, that

¹See Florida Administration Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed David A. Buff

David A. Buff
Name (Please Type)

KBN Engineering and Applied Sciences, Inc.
Company Name (Please Type)

1034 N.W. 57th Street, Gainesville, FL 32605
Mailing Address (Please Type)

Florida Registration No. 19011 Date: 11/18/92 Telephone No. (904) 331-9000

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Refer to PSD Report

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction April 1, 1993 Completion of Construction December 31, 1993

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

Not Applicable

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

Not Applicable.

E. Requested permitted equipment operating time: hrs/day 24; days/wk 7; wks/yr 52;
If power plant, hrs/yr _____; if seasonal, describe: _____

F. If this is a new source or major modification, answer the following questions.
(Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? Yes
 - a. If yes, has "offset" been applied? No
 - b. If yes, has "Lowest Achievable Emission Rate" been applied? No
 - c. If yes, list non-attainment pollutants. Ozone
2. Does best available control technology (BACT) apply to this source?
If yes, see Section VI. Yes
3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. Yes
4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? Yes
5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? No

- H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? No
- a. If yes, for what pollutants? _____
 - b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
	<i>Not applicable</i>			

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): *Not applicable*

2. Product Weight (lbs/hr): *Not applicable*

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed ² Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
	<i>See Section 2.0 of</i>						
	<i>PSD Report</i>						

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (if applicable)	Basis for Efficiency (Section V Item 5)
<i>Not Applicable</i>				

E. Fuels (Each Package Boiler)

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
<i>No. 2 Fuel Oil</i>	-	<i>1,192 gal/hr</i>	<i>164.5</i>
<i>Natural Gas</i>	-	<i>174,700 scf/hr</i>	<i>174.7</i>

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, others--lbs/hr.

Fuel Analysis: Refer to Section 2.0 of PSD Report

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average N/A Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

The small amount of liquid wastes generated will be treated in the plant wastewater treatment system.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 200 ft. Stack Diameter: 8.0 ft.
 Gas Flow Rate: 53,366 ACFM 31,502 DSCFM Gas Exit Temperature: 330 °F.
 Water Vapor Content: 10 % Velocity: 53 FPS

SECTION IV: INCINERATOR INFORMATION

Not Applicable

Type of Waste	Type 0 (Plastics)	Type II (Rubbish)	Type III (Refuse)	Type IV (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume (ft) ³	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control devices: Cyclone Wet Scrubber Afterburner
 Other (specify) _____

Brief description of operating characteristics of control devices: _____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
Not applicable
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods, 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
See Section 2.0 of PSD Report
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
See Section 2.0 of PSD Report
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
Not Applicable
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
Not Applicable
6. An 8 ½" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
Not applicable
7. An 8 ½" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Examples: Copy of relevant portion of USGS topographic map).
See Section 2.0 of PSD Report
8. An 8 ½" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.
See Section 2.0 of PSD Report

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

See PSD Report

- A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes No

Contaminant	Rate or Concentration

- B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

Yes No

Contaminant	Rate or Concentration

- C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

- D. Describe the existing control and treatment technology (if any).

- | | |
|---------------------------|--------------------------|
| 1. Control Device/System: | 2. Operating Principles: |
| 3. Efficiency:* | 4. Capital Costs: |

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Devices:

b. Operating Principles:

c. Efficiency:¹

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

- j. Applicability to manufacturing processes:
 - k. Ability to construct with control device, install in available space, and operate within proposed levels:
- 3.
- a. Control Device:
 - b. Operating Principles:
 - c. Efficiency:¹
 - d. Capital Cost:
 - e. Useful Life:
 - f. Operating Cost:
 - g. Energy:²
 - h. Maintenance Cost:
 - i. Availability of construction materials and process chemicals:
 - j. Applicability to manufacturing processes:
 - k. Ability to construct with control device, install in available space, and operate within proposed levels:
- 4.
- a. Control Device:
 - b. Operating Principles:
 - c. Efficiency:¹
 - d. Capital Cost:
 - e. Useful Life:
 - f. Operating Cost:
 - g. Energy:²
 - h. Maintenance Cost:
 - i. Availability of construction materials and process chemicals:
 - j. Applicability to manufacturing processes:
 - k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

- 1. Control Device:
- 2. Efficiency:¹
- 3. Capital Cost:
- 4. Useful Life:
- 5. Operating Cost:
- 6. Energy:²
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:
 - a. (1) Company:
 - (2) Mailing Address:
 - (3) City:
 - (4) State:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant

Rate or Concentration

(8) Process Rate:¹

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant

Rate or Concentration

(8) Process Rate:¹

10. Reason for selection and description of systems:

¹Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

Refer to PSD Report

A. Company Monitored Data

1. _____ no. sites _____ TSP _____ () SO^{2*} _____ Wind spd/dir

Period of Monitoring _____ / _____ / _____ to _____ / _____ / _____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [] Yes [] No

b. Was instrumentation calibrated in accordance with Department procedures?

[] Yes [] No [] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from _____ / _____ / _____ to _____ / _____ / _____
month day year month day year

2. Surface data obtained from (location) _____

3. Upper air (mixing height) data obtained from (location) _____

4. Stability wind rose (STAR) data obtained from (location) _____

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO ²	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e, jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION



APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Package Boiler [x] New¹ [] Existing¹
APPLICATION TYPE: [x] Construction [] Operation [] Modification
COMPANY NAME: Seminole Kraft Corporation COUNTY: Duval
Identify the specific emission point source(s) addressed in this application (i.e., Lime
Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) No. 3 Package Boiler
SOURCE LOCATION: Street 9469 Eastport Road City Jacksonville
UTM: East Zone 17: 441.8 North 3,365.6
Latitude 30 ° 25 ' 15 "N Longitude 81 ° 36 ' 00 "W
APPLICANT NAME AND TITLE: L.A. Stanley, General Manager
APPLICANT ADDRESS: 9469 East Port Road, Jacksonville, FL 32229

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Seminole Kraft Corp.

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: L.A. Stanley

L.A. Stanley, General Manager

Name and Title (Please Type)

Date: 11/20/82 Telephone No. (904) 751-6400

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)
This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgement, that

¹See Florida Administration Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed David A. Buff
David A. Buff

Name (Please Type)

KBN Engineering and Applied Sciences, Inc.
Company Name (Please Type)

1034 N.W. 57th Street, Gainesville, FL 32605
Mailing Address (Please Type)

Florida Registration No. 19011 Date: 11/18/92 Telephone No. (904) 331-9000

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Refer to PSD Report

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction April 1, 1993 Completion of Construction December 31, 1993

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

Not Applicable

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

Not Applicable.

E. Requested permitted equipment operating time: hrs/day 24; days/wk 7; wks/yr 52;
If power plant, hrs/yr _____; if seasonal, describe: _____

F. If this is a new source or major modification, answer the following questions.
(Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? Yes
 - a. If yes, has "offset" been applied? No
 - b. If yes, has "Lowest Achievable Emission Rate" been applied? No
 - c. If yes, list non-attainment pollutants. Ozone
2. Does best available control technology (BACT) apply to this source?
If yes, see Section VI. Yes
3. Does the State "Prevention of Significant Deterioration" (PSD)
requirement apply to this source? If yes, see Sections VI and VII. Yes
4. Do "Standards of Performance for New Stationary Sources" (NSPS)
apply to this source? Yes
5. Do "National Emission Standards for Hazardous Air Pollutants"
(NESHAP) apply to this source? No

- H. Do "Reasonably Available Control Technology" (RACT) requirements apply
to this source? No
- a. If yes, for what pollutants? _____
 - b. If yes, in addition to the information required in this form, any information
requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any
justification for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
	<i>Not applicable</i>			

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): *Not applicable*

2. Product Weight (lbs/hr): *Not applicable*

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed ² Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
	<i>See Section 2.0 of</i>						
	<i>PSD Report</i>						

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
<i>Not Applicable</i>				

E. Fuels (Each Package Boiler)

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
<i>No. 2 Fuel Oil</i>	-	<i>1,192 gal/hr</i>	<i>164.5</i>
<i>Natural Gas</i>	-	<i>174,700 scf/hr</i>	<i>174.7</i>

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, others--lbs/hr.

Fuel Analysis: Refer to Section 2.0 of PSD Report

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average N/A Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

The small amount of liquid wastes generated will be treated in the plant wastewater treatment system.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 200 ft. Stack Diameter: 8.0 ft.
 Gas Flow Rate: 53,366 ACFM 31,502 DSCFM Gas Exit Temperature: 330 °F.
 Water Vapor Content: 10 % Velocity: 53 FPS

SECTION IV: INCINERATOR INFORMATION

Not Applicable

Type of Waste	Type 0 (Plastics)	Type II (Rubbish)	Type III (Refuse)	Type IV (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume (ft) ³	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control devices: Cyclone Wet Scrubber Afterburner
 Other (specify) _____

Brief description of operating characteristics of control devices: _____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
Not applicable
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods, 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
See Section 2.0 of PSD Report
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
See Section 2.0 of PSD Report
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
Not Applicable
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
Not Applicable
6. An 8 ½" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
Not applicable
7. An 8 ½" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Examples: Copy of relevant portion of USGS topographic map).
See Section 2.0 of PSD Report
8. An 8 ½" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.
See Section 2.0 of PSD Report

- 9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
- 10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

See PSD Report

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes No

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

Yes No

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

D. Describe the existing control and treatment technology (if any).

- | | |
|---------------------------|--------------------------|
| 1. Control Device/System: | 2. Operating Principles: |
| 3. Efficiency:* | 4. Capital Costs: |

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Devices:

b. Operating Principles:

c. Efficiency:¹

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

- j. Applicability to manufacturing processes:
 - k. Ability to construct with control device, install in available space, and operate within proposed levels:
- 3.
- a. Control Device:
 - b. Operating Principles:
 - c. Efficiency:¹
 - d. Capital Cost:
 - e. Useful Life:
 - f. Operating Cost:
 - g. Energy:²
 - h. Maintenance Cost:
 - i. Availability of construction materials and process chemicals:
 - j. Applicability to manufacturing processes:
 - k. Ability to construct with control device, install in available space, and operate within proposed levels:
- 4.
- a. Control Device:
 - b. Operating Principles:
 - c. Efficiency:¹
 - d. Capital Cost:
 - e. Useful Life:
 - f. Operating Cost:
 - g. Energy:²
 - h. Maintenance Cost:
 - i. Availability of construction materials and process chemicals:
 - j. Applicability to manufacturing processes:
 - k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

- 1. Control Device:
- 2. Efficiency:¹
- 3. Capital Cost:
- 4. Useful Life:
- 5. Operating Cost:
- 6. Energy:²
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:
 - a. (1) Company:
 - (2) Mailing Address:
 - (3) City:
 - (4) State:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant	Rate or Concentration

(8) Process Rate:¹

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant	Rate or Concentration

(8) Process Rate:¹

10. Reason for selection and description of systems:

¹Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

Refer to PSD Report

A. Company Monitored Data

1. _____ no. sites _____ TSP _____ () SO²* _____ Wind spd/dir

Period of Monitoring _____ / _____ / _____ to _____ / _____ / _____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [] Yes [] No

b. Was instrumentation calibrated in accordance with Department procedures?

[] Yes [] No [] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from _____ / _____ / _____ to _____ / _____ / _____
month day year month day year

2. Surface data obtained from (location) _____

3. Upper air (mixing height) data obtained from (location) _____

4. Stability wind rose (STAR) data obtained from (location) _____

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO ²	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e, jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

APPENDIX C

REFERENCES FOR BASELINE EMISSION FACTORS



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

June 6, 1990

*Cc: M. Kidd
C. Barton
J. Cole*

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. L. A. Stanley
General Manager
Seminole Kraft Corporation
9469 Eastport Road
Jacksonville, Florida 32218-0998

Dear Mr. Stanley:

Re: Contemporaneous Emissions Credit Calculations

The Department and the U.S. EPA - Region IV have reviewed your letter with attachments dated February 16, 1990. A letter of response, which is attached, was received from Ms. Jewell A. Harper, Chief of the Air Enforcement Branch, U.S. EPA-Region IV, posing a concern about the calculation of contemporaneous emissions credit. Specifically, contemporaneous emissions shall be based on actual emissions data established by conducting emissions tests and on actual operating data (hours per year) from the two years previous to shutdown, unless another time period within the last 5 years prior to shutdown is more representative of actual operating conditions. The Department concurs with EPA on this issue since this is the guidelines established in both the federal and state regulations.

Because Seminole Kraft Corporation (SKC) has indicated that the mill might be going to 100% recycled fiber by no later than November 12, 1992, the mill will have adequate time to conduct emissions tests on the various sources that would be shut down and candidates for contemporaneous emissions credit. Therefore, the Department requests that SKC conduct emissions tests on all sources that it intends to shutdown in order to calculate contemporaneous emissions credit.

Mr. L. A. Stanley
Page 2
June 6, 1990

If there are any questions, please call Bruce Mitchell at
(904)488-1344 or write to me at the above address.

Sincerely,



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

CHF/BM/t

attachments

cc: A. Kutyna, NE District
J. Manning, BESD
J. Harper, U.S. EPA
C. Shaver, NPS
T. Cole, OHF & C, P.A.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

APR 4 1990

4APT-AEB

RECEIVED

APR 09 1990

DER-BAQ^m

Mr. C. H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Seminole Kraft Corporation (PSD-FL-141)

Dear Mr. Fancy:

This is to acknowledge receipt of a package from your office transmitting a request from Seminole Kraft Corporation to modify their prevention of significant deterioration (PSD) permit, dated February 16, 1990. As discussed between Mr. Pradeep Raval of your staff and Mr. Gregg Worley of my staff on March 30, 1990, we have the following comments.

CREDITABLE EMISSIONS REDUCTIONS

The source has requested that conditions be placed in the PSD permit to allow them the flexibility to convert to 100% recycled fiber in lieu of constructing the new recovery boiler. In the event that the source makes the decision to convert to recycled fiber, the source would like to retain emissions credit for the units which would be shut down at the facility (i.e., the existing kraft pulp mill). The credit for shutting down any units may be retained but we must emphasize that such credit must be based on actual operating data from the two years previous to the shutdown, unless another time period is determined to be more representative of actual operating conditions. The information submitted by Seminole Kraft is based on the years 1983-84. Apparently the source used the operating hours of this time period along with presently permitted allowable emission rates to arrive at their creditable emission reductions. This is not acceptable. We would suggest that it would be prudent of FDER to require testing of the units prior to shutdown for the pollutants which are to be credited. In any case, the actual emission rates must be used rather than the permitted allowable rates unless the actual emissions exceed the allowable emissions.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

FEB 25 1991

4APT-AE

Mr. Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
Division of Air Resources Management
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RECEIVED
MAR 13 1991
DER-BAQM

Dear Mr. Fancy:

As requested in your November 16, 1990, letter, we have reviewed the analysis by Mr. Terry Cole of Oertel, Hoffman, Fernandez and Cole, P.A., regarding the applicability of NSPS and PSD to the boilers at Seminole Kraft and AES Cedar Bay (AESCB) in Jacksonville, Florida. In Mr. Cole's letter, two specific situations involving the boilers at Seminole Kraft and the AESCB project were addressed.

APPLICABILITY OF NSPS AND PSD IF AESCB/SEMINOLE KRAFT PROJECT IS CERTIFIED

Under the conditions of certification for the AESCB project, the shutdown of boilers at Seminole Kraft is required in order to provide offsets for increases in pollutants from the cogeneration facility. It must be noted that for the emissions reductions to be creditable, they must be permanent. After the PSD permit is issued which incorporates these shutdowns and makes them federally enforceable, there will be no additional emissions reduction credit available from the shutdown of these boilers. Should Seminole Kraft decide to refurbish the dismantled bark boilers, the boilers would be treated as entirely new emissions units with none of the exemptions from applicability for existing units that are specified under PSD regulations being available.

With regard to NSPS, the existing boilers at Seminole Kraft would not become subject to NSPS if they remained intact and were merely restarted, without any physical or operational change.

If the boilers are dismantled in any fashion (i.e. key components removed) and the decision is later made to restart the boilers, then NSPS would apply. This is due to the fact that there would be an emission increase caused by a physical change to the boilers. Since the boilers were incapable of operating, the emissions would be zero immediately before the changes necessary for a restart and therefore, an emissions increase would have resulted thus triggering NSPS. This is consistent with the Wisconsin Electric Power Company decision. If changes are only necessary to accommodate a different fuel mix, then we would accept emission data just prior to the shutdown and compare with data after start up to determine if an emissions increase, and hence a modification, would result thus triggering NSPS. Furthermore, the composition of the fiber rejects would need to be evaluated to determine if the new combination of fuel would be classified as municipal solid waste (MSW). If so, then the newly promulgated NSPS regulations for municipal waste combustors would apply.

APPLICABILITY OF NSPS AND PSD IF AESCB/SEMINOLE KRAFT PROJECT IS NOT CERTIFIED

According to Mr. Cole, the bark boilers would not be subject to NSPS or PSD permit review when the fuel mixture for the bark boilers is changed from 100% bark to 75% bark/25% fiber reject mix. The basis for this determination is that the bark boilers were capable of firing the fiber rejects at the percentages anticipated as of January 6, 1975.

In order to determine the applicability of NSPS to the bark boilers due to the change in fuel type it must be ascertained if the bark boilers will have an increase in the emission rate, expressed as kilograms per hour, of a regulated pollutant and if the bark boilers could fire the fiber rejects as originally constructed. However, not enough information was provided to determine if an emission rate increase in a regulated pollutant would occur, therefore, we will assume that an increase in a regulated pollutant will occur.

Assuming that an increase will occur, then the second condition must be addressed. It is incorrect to use January 6, 1975, as the date to determine if the bark boilers were originally designed to burn the bark and fiber rejects simultaneously. The exemption to the modification provision at §60.14(e)(4) essentially states that if the existing facility could have fired the alternative fuel prior to the applicability date of

the NSPS Subpart, then the increase in the emission rate of a regulated pollutant due to the use of the alternative fuel would not be considered a modification as defined in §60.14. Since Mr. Cole indicated that on January 6, 1975, the bark boilers were capable of firing the 75% bark/25% fiber rejects mixture, the only possible applicable NSPS Subparts are Subparts D and E. If the bark boilers were capable of firing the alternative fuel prior to August 17, 1971, then neither Subpart would apply.

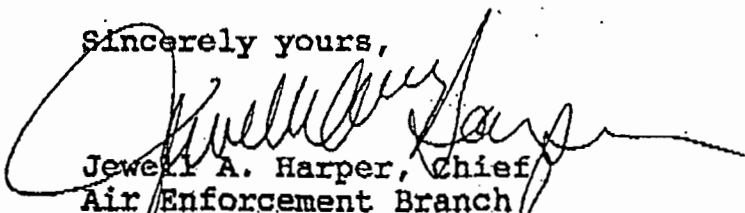
If the bark boilers were not capable of firing the alternative fuel prior to August 17, 1971, then they could be subject to either Subparts D or E or both if an increase in the emission rate of a regulated pollutant occurs. In addition, in order for Subpart E to apply, the combination of bark and fiber rejects would have to be determined to be MSW.

In addition, if the combination of bark and fiber rejects is considered to be MSW, then the bark boilers would be subject to emission standards for existing MSW combustors which will be established in accordance with the guidelines published in the February 11, 1991, Federal Register.

With regard to PSD, since the bark boilers were capable of firing bark and fiber refuse prior to January 6, 1975, then PSD review would not be required.

If you have any questions regarding this letter, please contact Mr. Brian Beals at 404/347-2904.

Sincerely yours,



Jewell A. Harper, Chief
Air Enforcement Branch
Air, Pesticides and Toxics
Management Division



Seminole Kraft Corporation

Jacksonville Mill

9469 Eastport Road
P.O. Box 26998
Jacksonville, Florida 32218-0998

904 751-6400

September 28, 1992

FDER
Bruce Mitchell
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RESO
Wayne Walker
421 West Church Street
Suite - 412
Jacksonville, FL 32202

RE: Emission Credits

Supporting reports containing the data submitted with our request for emission credits are enclosed. They are:

- Attachment 1 Annual Operating Report for 1990
- Attachment 2 Annual Operating Report for 1991
- Attachment 3 Emissions Test Report prepared by Industrial and Environmental Analysts, Inc.
Dated February 28, 1991
- Attachment 4 Source Test Report for SO₂ Emissions by Air Consulting and Engineering, Inc.
Dated March 27, 1989
- Attachment 5 Source Test Report for SO₂ Emissions by Air Consulting and Engineering, Inc.
Dated March 27-28, 1989
- Attachment 6 Source Emissions Test for SO₂ Technical Services, Inc.
Dated August 30- September 2, 1989

September 28, 1992
Page 2

Attachment 7 Source Emissions Test Report for Oxides of
Nitrogen, Technical Services, Inc.
Dated February 20-21, 1992

Attachment 8 National Council of The Paper Industry for Air and
Stream Improvement, Inc. (NCASI) Technical
Bulletin No. 358
Dated September, 1981

Table I is revised to indicate the source of each number.

The hours of operation are listed in Table II and the production
of air dried pulp are listed in Table III.

Should you have any further questions, please call me at
(904) 751-6400 ext. 279.

Sincerely,


W. Joe Eskridge

WJE/pjw

attachments

JE34



Seminole Kraft Corporation

Jacksonville Mill

9469 Eastport Road
P.O. Box 26998
Jacksonville, Florida 32218-0998

October 21, 1992

904 751-6400

FDER
Bruce Mitchell
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RES
Wayne Walker
421 West Church Street
Suite - 412
Jacksonville, FL 32202

RE: Emission Credits

After a further review of the data submitted to you for support of our request for emissions credits, I have discovered an error.

The SO₂ emissions for Lime Kiln number 3 should be 7 tons per year instead of 9 tons.

Please replace the data table in your copy of my letter with this corrected table. All other data remains as reported.

I apologize for the calculation error.

Should you have any questions please feel free to call me at (904) 751-6400 ext. 279.

Sincerely,

W. Joe Eskridge
Environmental Engineer

WJE/pjw

attachment

cc: M. Riddle
C. Hurd
D. Buff

JE42

TABLE I - AVERAGE TONS/YEAR

	Carbon Monoxide (CO)	Particulate Matter (PM) (c)	Sulfur Dioxide (SO ₂)	Nitrogen Oxides (NO _x) (e)	Volatile Organic Compounds (VOC)	Total Reduced Sulfur (TRS) (c)	Sulfuric Acid (H ₂ SO ₄) (a)
Recovery Boiler 1	1141 (a)	108	4 (a)	120	114 (a)	7	10
Recovery Boiler 2	1173 (a)	156	3 (a)	129	193 (a)	12	20
Recovery Boiler 3	481 (a)	130	1 (a)	143	38 (a)	14	14
Lime Kiln 1	1 (b)	4	-	7	2 (f)	-	-
Lime Kiln 2	11 (b)	22	9 (d)	41	19 (f)	2	-
Lime Kiln 3	10 (b)	20	7 (d)	60	19 (f)	1	-
Smelt Dissolving Tank 1	-	23	2 (b)	-	-	1	-
Smelt Dissolving Tank 2	-	24	3 (b)	-	-	2	-
Smelt Dissolving Tank 3	-	37	3 (b)	-	-	2	-
Slaker 3	-	1	-	-	-	-	-
TOTAL	2817	525	34	500	385	41	44

- (a) = Emission test report by IEA Inc. (Attachment 3)
- (b) = AP-42 factors used due to lack of actual data
- (c) = Annual Operating Reports for 1990 and 1991 (Attachments 1 & 2)
- (d) = SO₂ Source Test Reports by TSI and ACE (Attachments 4, 5, 6)
- (e) = NO_x Test Report by TSI (Attachment 7)
- (f) = NCASI information (Attachment 8)

TABLE II
HOURS OF OPERATION

		1989	1990	1991
RECOVERY BOILER	1	8405	8000	8322
RECOVERY BOILER	2	7960	8085	8140
RECOVERY BOILER	3	8119	7919	8347
LIME KILN	1	2062	1500	840
LIME KILN	2	6873	7695	7769
LIME KILN	3	7302	7618	7577
SMELT DISOLVING TANKS	1	8405	8000	8322
SMELT DISOLVING TANKS	2	7960	8085	8140
SMELT DISOLVING TANKS	3	8119	7919	8347
SLAKER	3	7238	7808	7823

TABLE III
TONS AIR DRIED PULP

1989	430,947
1990	459,683
1991	395,040

TABLE 10.1-1. EMISSION FACTORS FOR KRAFT PULPING^a

EMISSION FACTOR RATING: A

Source	Type of control	Particulate		Sulfur dioxide (SO ₂)		Carbon monoxide (CO)		Hydrogen sulfide (S ^m)		RSH, RSR, RSSR (S ^m)	
		kg/Mg	lb/ton	kg/Mg	lb/ton	kg/Mg	lb/ton	kg/Mg	lb/ton	kg/Mg	lb/ton
Digester relief and blow tank	Untreated ^b	-	-	-	-	-	-	0.02	0.03	0.6	1.2
Brown stock washer	Untreated ^b	-	-	-	-	-	-	0.01	0.02	0.2 ^c	0.4 ^c
Multiple effect evaporator	Untreated ^b	-	-	-	-	-	-	0.55	1.1	0.05	0.1
Recovery boiler and direct evaporator	Untreated ^d	90	180	3.5	7	5.5	11	6 ^e	12 ^e	1.5 ^e	3 ^e
	Venturi scrubber ^f	24	48	3.5	7	5.5	11	6 ^e	12 ^e	1.5 ^e	3 ^e
	ESP	1	2	3.5	7	5.5	11	6 ^e	12 ^e	1.5 ^e	3 ^e
	Auxiliary scrubber	1.5-7.5 ^g	3-15 ^g					6 ^e	12 ^e	1.5 ^e	3 ^e
Noncontact recovery boiler without direct contact evaporator	Untreated	115	230	-	-	5.5	11	0.05 ^h	0.1 ^h	-	-
	ESP	1	2	-	-	5.5	11	0.05 ^h	0.1 ^h	-	-
Smelt dissolving tank	Untreated	3.5	7	0.1	0.2	-	-	0.1 ^j	0.2 ^j	0.15 ^j	0.3 ^j
	Mesh pad	0.5	1	0.1	0.2	-	-	0.1 ^j	0.2 ^j	0.15 ^j	0.3 ^j
	Scrubber	0.1	0.2	-	-	-	-	0.1 ^j	0.2 ^j	0.15 ^j	0.3 ^j
Lime kiln	Untreated	28	56	0.15	0.3	0.05	0.1	0.25 ^m	0.5 ^m	0.1 ^m	0.2 ^m
	Scrubber or ESP	0.25	0.5	-	-	0.05	0.1	0.25 ^m	0.5 ^m	0.1 ^m	0.2 ^m
Turpentine condenser	Untreated	-	-	-	-	-	-	0.005	.01	0.25	0.5
Miscellaneous ⁿ	Untreated	-	-	-	-	-	-	-	-	0.25	0.5

^aReferences 8-10. Factors expressed in unit weight of air dried unbleached pulp (ADP). RSH = Methyl mercaptan. RSR = Dimethyl sulfide. RSSR = Dimethyl disulfide. ESP = Electrostatic precipitator. Dash = No data.

^bIf noncondensable gases from these sources are vented to lime kiln, recovery furnace or equivalent, the reduced sulfur compounds are destroyed.

^cApply with system using condensate as washing medium. When using fresh water, emissions are 0.05 (0.1).

^dApply when cyclonic scrubber or cascade evaporator is used for direct contact evaporation, with no further controls.

^eUsually reduced by 50% with black liquor oxidation and can be cut 95 - 99% when oxidation is complete and recovery furnace is operated optimally.

^fApply when venturi scrubber is used for direct contact evaporation, with no further controls.

^gUse 7.5 (15) when auxiliary scrubber follows venturi scrubber, and 1.5 (3) when it follows ESP.

^hApply when recovery furnace is operated optimally to control total reduced sulfur (TRS) compounds.

^jUsually reduced to 0.01 g/kg (0.02 lb/ton) ADP when water low in sulfides is used in smelt dissolving tank and associated scrubber.

^mUsually reduced to 0.015 g/kg (0.03 lb/ton) ADP with efficient mud washing, optimal kiln operation and added caustic in scrubbing water. With only efficient mud washing and optimal process control, TRS compounds reduced to 0.04 g/kg (0.08 lb/ton) ADP.

ⁿIncludes knotter vents, brownstock seal tanks, etc. When black liquor oxidation is included, emissions are 0.3 (0.6).

TABLE 10.1-2. CUMULATIVE PARTICLE SIZE DISTRIBUTION AND SIZE SPECIFIC EMISSION FACTORS FOR A RECOVERY BOILER WITH A DIRECT CONTACT EVAPORATOR AND AN ESP^a

EMISSION FACTOR RATING: C

Particle size (um)	Cumulative mass % \leq stated size		Cumulative emission factor (kg/Mg of air dried pulp)	
	Uncontrolled	Controlled	Uncontrolled	Controlled
15	95.0	-	86	-
10	93.5	-	84	-
6	92.2	68.2	83	0.7
2.5	83.5	53.8	75	0.5
1.25	56.5	40.5	51	0.4
1.00	45.3	34.2	41	0.3
0.625	26.5	22.2	24	0.2
Total	100	100	90	1.0

^aReference 7. Dash = no data.

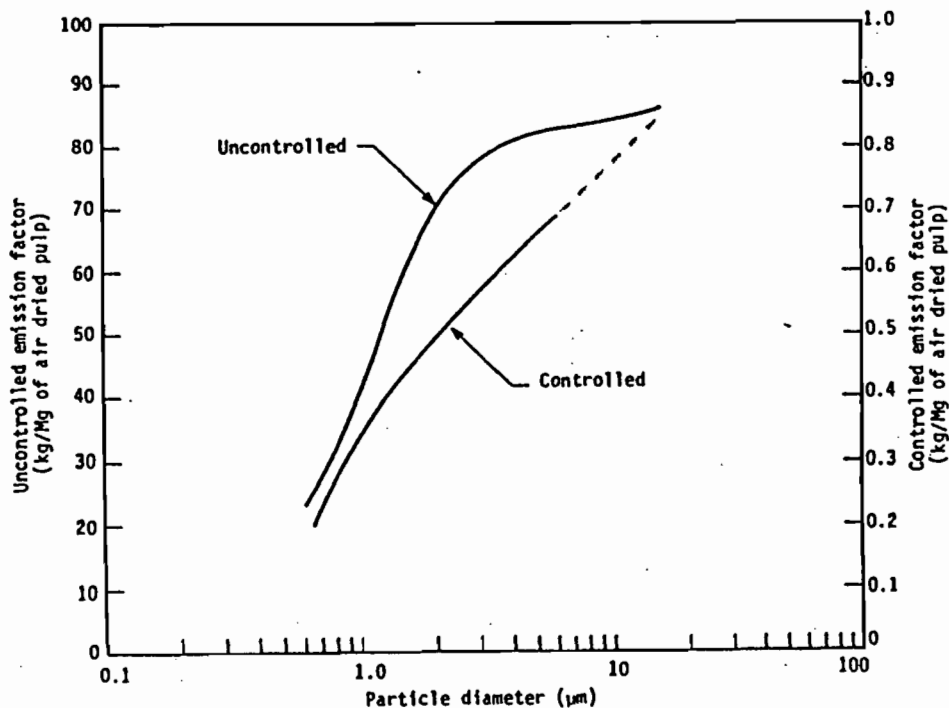


Figure 10.1-2. Cumulative particle size distribution and size specific emission factors for recovery boiler with direct contact evaporator and ESP.

TABLE 10.1-7. CUMULATIVE PARTICLE SIZE DISTRIBUTION AND SIZE SPECIFIC EMISSION FACTORS FOR A SMELT DISSOLVING TANK WITH A VENTURI SCRUBBER^a

EMISSION FACTOR RATING: C

Particle size (um)	Cumulative mass % \leq stated size		Cumulative emission factor (kg/Mg of air dried pulp)	
	Uncontrolled	Controlled	Uncontrolled	Controlled
15	90.0	89.9	3.2	0.09
10	88.5	89.5	3.1	0.09
6	87.0	88.4	3.0	0.09
2.5	73.0	81.3	2.6	0.08
1.25	47.5	63.5	1.7	0.06
1.00	54.0	54.7	1.4	0.06
0.625	25.5	38.7	0.9	0.04
Total	100	100	3.5	0.09

^aReference 7.

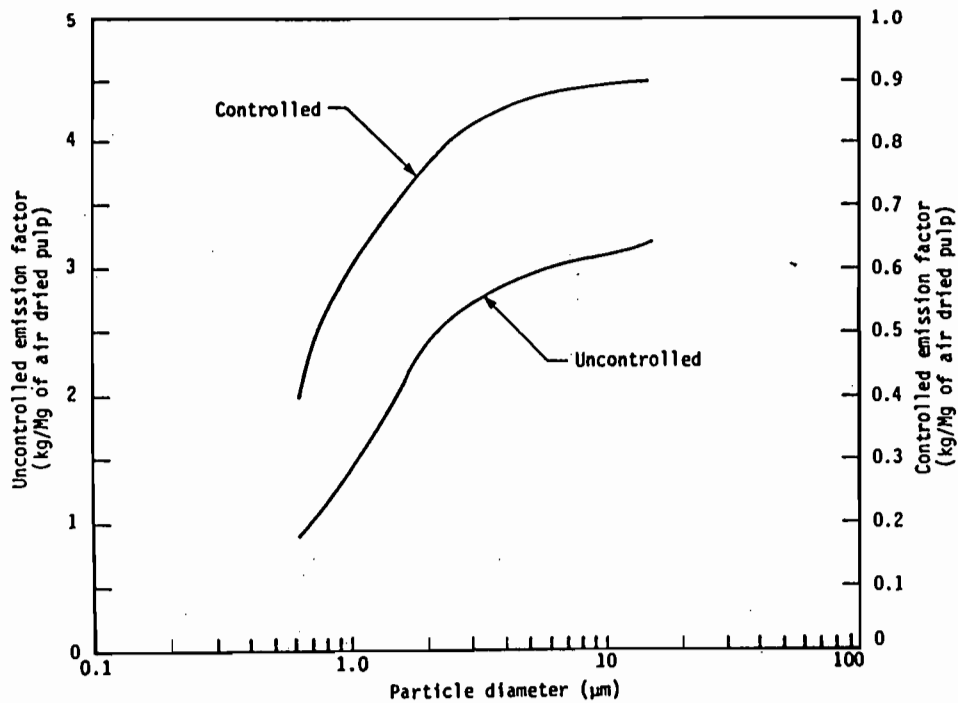


Figure 10.1-7. Cumulative particle size distribution and size specific emission factors for smelt dissolving tank with venturi scrubber.

TABLE 10.1-4. CUMULATIVE PARTICLE SIZE DISTRIBUTION AND SIZE SPECIFIC EMISSION FACTORS FOR A LIME KILN WITH A VENTURI SCRUBBER^a

EMISSION FACTOR RATING: C

Particle size (um)	Cumulative mass % < stated size		Cumulative emission factor (kg/Mg of air dried pulp)	
	Uncontrolled	Controlled	Uncontrolled	Controlled
15	27.7	98.9	7.8	0.24
10	16.8	98.3	4.7	0.24
6	13.4	98.2	3.8	0.24
2.5	10.5	96.0	2.9	0.24
1.25	8.2	85.0	2.3	0.21
1.00	7.1	78.9	2.0	0.20
0.625	3.9	54.3	1.1	0.14
Total	100	100	28.0	0.25

^aReference 7.

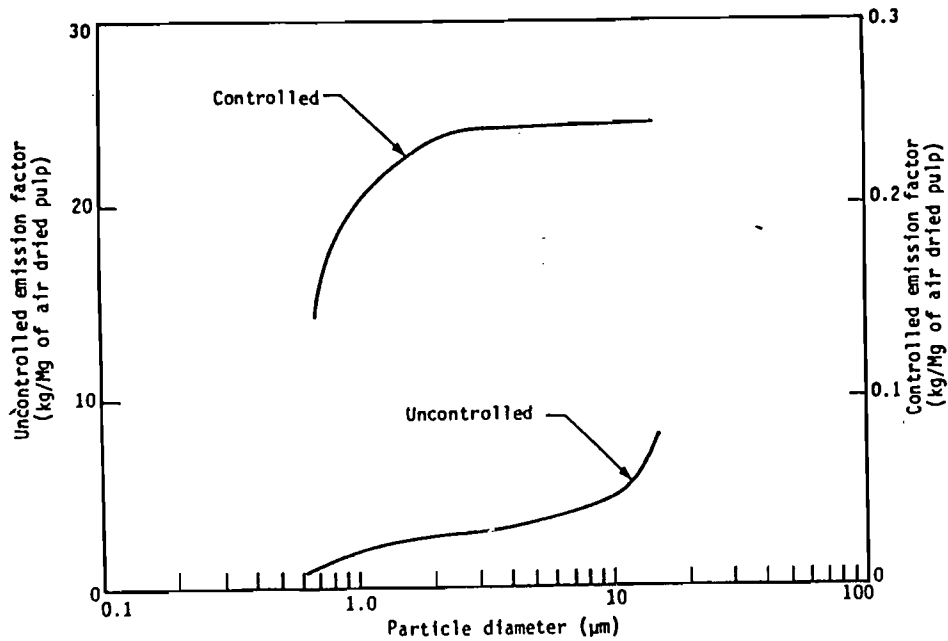


Figure 10.1-4. Cumulative particle size distribution and size specific emission factors for lime kiln with venturi scrubber.



REPORT NO.: 192-91-10

PROJECT: 1121-001

DATE: February 28, 1991

TYPE: **EMISSION TEST REPORT**

**EMISSION TEST RESULTS
NO. 1 AND 2 BARK BOILERS
AND NO. 1, 2, AND 3 RECOVERY BOILERS
SEMINOLE KRAFT CORPORATION
JACKSONVILLE, FLORIDA**

AUTHOR: Jeffrey W. Burdette

FIELD TEAM: J. Burdette, K. Krick, D. Prater, C. Johnson, T. Drake, J. Morgan, D. Bellware

PREPARED FOR: Seminole Kraft Corporation
9469 Eastport Road
Jacksonville, FL 32218

TABLE 2.1 SUMMARY OF TEST PARAMETERS

	BARK BOILERS		RECOVERY BOILERS		
	NUMBER 1	NUMBER 2	NUMBER 1	NUMBER 2	NUMBER 3
Oxygen, %	10.7	8.3	11.2	8.5	8.7
Carbon Dioxide, %	9.8	12.2	9.3	11.8	11.7
Moisture, %	17.2	20.1	28.2	32.6	30.1
Velocity, ft/s	42.7	37.1	52.4	51.2	47.9
Volumetric Flow, acfm	1.32E+05	1.14E+05	1.78E+05	1.99E+05	1.83E+05
Volumetric Flow, dscfm	9.69E+04	8.08E+04	1.11E+05	1.15E+05	1.10E+05
Particulate					
Concentration, gr/dscf	0.021	0.058	0.086	0.085	0.038
Emission Rate, lb/hr	17.4	39.7	81.8	84.4	35.4
Metals					
Ba, ug/dscf	1.60	0.70	0.00	0.00	0.00
lb/hr	0.0205	0.0074	0.0004	0.0007	0.0000
Cd, ug/dscf	0.10	0.10	0.00	0.00	0.00
lb/hr	0.0013	0.0007	0.0000	0.0000	0.0000
Cr, ug/dscf	0.20	0.30	0.10	0.10	0.00
lb/hr	0.0028	0.0034	0.0010	0.0012	0.0002
Cu, ug/dscf	0.50	0.60	0.00	0.10	0.00
lb/hr	0.0070	0.0060	0.0003	0.0009	0.0005
Pb, ug/dscf	0.80	1.00	0.00	0.00	0.00
lb/hr	0.0105	0.0112	0.0000	0.0000	0.0000
Mn, ug/dscf	0.70	1.10	0.20	0.20	0.10
lb/hr	0.0084	0.0113	0.0029	0.0034	0.0016
Ni, ug/dscf	1.10	0.90	0.00	0.10	0.00
lb/hr	0.0138	0.0098	0.0000	0.0008	0.0005
P, ug/dscf	4.70	6.20	0.50	0.40	1.20
lb/hr	0.0605	0.0657	0.0075	0.0066	0.0166
Ag, ug/dscf	0.40	0.00	0.00	0.00	0.00
lb/hr	0.0055	0.0000	0.0000	0.0000	0.0006
Zn, ug/dscf	12.10	12.40	1.00	0.90	0.50
lb/hr	0.1548	0.1320	0.0147	0.0139	0.0072
Sulfur Dioxide					
Concentration, ppm	2.8	3.7	0.8	0.6	0.2
Emission Rate, lb/hr	2.7	3.0	0.9	0.7	0.2
Nitrogen Oxide					
Concentration, ppm	106.7	79.1	36.3	38.5	43.6
Emission Rate, lb/hr	74.1	45.9	28.8	31.8	34.3
Sulfuric Acid					
Concentration, lb/dscf	5.05E-08	7.28E-08	3.34E-07	7.05E-07	4.91E-07
Emission Rate, lb/hr	0.27	0.33	2.34	4.90	3.42
Carbon Monoxide					
Concentration, ppm	311.1	690.1	567.7	576.7	236.2
Emission Rate, lb/hr	131.8	242.3	274.2	288.2	115.2
Total Hydrocarbons					
Concentration, ppm	31.5	46.6	27.1	42.5	24.7
Emission Rate, lb/hr	24.7	30.7	27.4	47.5	9.0
Vinyl Chloride					
Concentration, ppm	0.0	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0	0.0	0.0	0.0	0.0

TABLE 2.3.3
NO. 1 RECOVERY BOILER
METALS SUMMARY

Run No.	1	2	3	AVG
Date	1/10/91	1/10/91	1/10/91	
Stack Flow Rate, dscfm	101,380	115,633	115,137	110,717
Sample Volume, dscf	40.535	47.169	46.745	44.817
ANTIMONY (Sb)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000
ARSENIC (As)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000
BARIUM (Ba)				
Quantity Collected, ug	0.0	0.0	4.0	1.3
Concentration, ug/dscf	0.0	0.0	0.1	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0013	0.0004
BERYLLIUM (Be)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000
CADMIUM (Cd)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000
CHROMIUM (Cr)				
Quantity Collected, ug	3.0	4.0	2.0	3.0
Concentration, ug/dscf	0.1	0.1	0.0	0.1
Emission Rate, lb/hr	0.0010	0.0013	0.0007	0.0010
COPPER (Cu)				
Quantity Collected, ug	0.0	2.0	1.0	1.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0006	0.0003	0.0003
LEAD (Pb)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000

(continued)

TABLE 2.3.3 (CONTINUED)
 NO. 1 RECOVERY BOILER
 METALS SUMMARY

Run No.	1	2	3	AVG
Date	1/10/91	1/10/91	1/10/91	
Stack Flow Rate, dscfm	101,380	115,633	115,137	110,717
Sample Volume, dscf	40.535	47.169	46.745	44.817
MANGANESE (MN)				
Quantity Collected, ug	8.0	13.0	6.0	9.0
Concentration, ug/dscf	0.2	0.3	0.1	0.2
Emission Rate, lb/hr	0.0026	0.0042	0.0020	0.0029
MERCURY (Hg)				
Quantity Collected (FH), ug	0.0	0.0	0.0	0.0
Quantity Collected (KMnO4)	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000
NICKEL (Ni)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000
PHOSPHORUS (P)				
Quantity Collected, ug	24.0	24.0	21.0	23.0
Concentration, ug/dscf	0.6	0.5	0.4	0.5
Emission Rate, lb/hr	0.0079	0.0078	0.0068	0.0075
SELENIUM (Se)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000
SILVER (Ag)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000
THALLIUM (TI)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000
ZINC (Zn)				
Quantity Collected, ug	38.0	44.0	53.0	45.0
Concentration, ug/dscf	0.9	0.9	1.1	1.0
Emission Rate, lb/hr	0.0126	0.0143	0.0173	0.0147

TABLE 2.4.3
NO. 2 RECOVERY BOILER
METALS SUMMARY

Run No.	1	2	3	AVG
Date	1/11/91	1/12/91	1/12/91	
Stack Flow Rate, dscfm	116,113	112,774	116,296	115,061
Sample Volume, dscf	43.915	43.606	43.501	43.674
ANTIMONY (Sb)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000
ARSENIC (As)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000
BARIUM (Ba)				
Quantity Collected, ug	0.0	6.0	0.0	2.0
Concentration, ug/dscf	0.0	0.1	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0021	0.0000	0.0007
BERYLLIUM (Be)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000
CADMIUM (Cd)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000
CHROMIUM (Cr)				
Quantity Collected, ug	4.0	3.0	3.0	3.3
Concentration, ug/dscf	0.1	0.1	0.1	0.1
Emission Rate, lb/hr	0.0014	0.0010	0.0011	0.0012
COPPER (Cu)				
Quantity Collected, ug	3.0	4.0	1.0	2.7
Concentration, ug/dscf	0.1	0.1	0.0	0.1
Emission Rate, lb/hr	0.0010	0.0014	0.0004	0.0009
LEAD (Pb)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000

(continued)

TABLE 2.4.3 (CONTINUED)
NO. 2 RECOVERY BOILER
METALS SUMMARY

Run No.	1	2	3	AVG
Date	1/11/91	1/12/91	1/12/91	
Stack Flow Rate, dscfm	116,113	112,774	116,296	115,061
Sample Volume, dscf	43.915	43.606	43.501	43.674
MANGANESE (MN)				
Quantity Collected, ug	11.0	10.0	8.0	9.7
Concentration, ug/dscf	0.3	0.2	0.2	0.2
Emission Rate, lb/hr	0.0038	0.0034	0.0028	0.0034
MERCURY (Hg)				
Quantity Collected (FH), ug	0.0	0.0	3.0	1.0
Quantity Collected (KMnO4)	0.0	1.0	0.0	0.3
Concentration, ug/dscf	0.0	0.0	0.1	0.0
Emission Rate, lb/hr	0.0000	0.0003	0.0011	0.0005
NICKEL (Ni)				
Quantity Collected, ug	0.0	0.0	7.0	2.3
Concentration, ug/dscf	0.0	0.0	0.2	0.1
Emission Rate, lb/hr	0.0000	0.0000	0.0025	0.0008
PHOSPHORUS (P)				
Quantity Collected, ug	12.0	27.0	18.0	19.0
Concentration, ug/dscf	0.3	0.6	0.4	0.4
Emission Rate, lb/hr	0.0042	0.0092	0.0064	0.0066
SELENIUM (Se)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000
SILVER (Ag)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000
THALLIUM (TI)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000
ZINC (Zn)				
Quantity Collected, ug	48.0	32.0	40.0	40.0
Concentration, ug/dscf	1.1	0.7	0.9	0.9
Emission Rate, lb/hr	0.0168	0.0109	0.0141	0.0139

TABLE 2.5.3
NO. 3 RECOVERY BOILER
METALS SUMMARY

Run No.	1	2	3	AVG
Date	1/12/91	1/13/91	1/13/91	
Stack Flow Rate, dscfm	117,176	108,886	104,132	110,065
Sample Volume, dscf	43.892	42.021	41.978	42.630
ANTIMONY (Sb)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000
ARSENIC (As)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000
BARIUM (Ba)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000
BERYLLIUM (Be)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000
CADMIUM (Cd)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000
CHROMIUM (Cr)				
Quantity Collected, ug	0.0	2.0	0.0	0.7
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0007	0.0000	0.0002
COPPER (Cu)				
Quantity Collected, ug	1.0	2.0	1.0	1.3
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0004	0.0007	0.0003	0.0005
LEAD (Pb)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000

(continued)

TABLE 2.5.3 (CONTINUED)
 NO. 3 RECOVERY BOILER
 METALS SUMMARY

Run No.	1	2	3	AVG
Date	1/12/91	1/13/91	1/13/91	
Stack Flow Rate, dscfm	117,176	108,886	104,132	110,065
Sample Volume, dscf	43.892	42.021	41.978	42.630
MANGANESE (MN)				
Quantity Collected, ug	8.0	4.0	2.0	4.7
Concentration, ug/dscf	0.2	0.1	0.0	0.1
Emission Rate, lb/hr	0.0028	0.0014	0.0007	0.0016
MERCURY (Hg)				
Quantity Collected (FH), ug	0.0	0.0	0.0	0.0
Quantity Collected (KMnO4)	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000
NICKEL (Ni)				
Quantity Collected, ug	0.0	4.0	0.0	1.3
Concentration, ug/dscf	0.0	0.1	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0014	0.0000	0.0005
PHOSPHORUS (P)				
Quantity Collected, ug	15.0	25.0	110.0	50.0
Concentration, ug/dscf	0.3	0.6	2.6	1.2
Emission Rate, lb/hr	0.0053	0.0086	0.0361	0.0166
SELENIUM (Se)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000
SILVER (Ag)				
Quantity Collected, ug	0.0	5.0	0.0	1.7
Concentration, ug/dscf	0.0	0.1	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0017	0.0000	0.0006
THALLIUM (Tl)				
Quantity Collected, ug	0.0	0.0	0.0	0.0
Concentration, ug/dscf	0.0	0.0	0.0	0.0
Emission Rate, lb/hr	0.0000	0.0000	0.0000	0.0000
ZINC (Zn)				
Quantity Collected, ug	22.0	21.0	20.0	21.0
Concentration, ug/dscf	0.5	0.5	0.5	0.5
Emission Rate, lb/hr	0.0078	0.0072	0.0066	0.0072

Summary of Seminole Kraft SO₂ Tests on Lime Kilns

Date	Lime Kiln (lb/hr)		
	No. 1	No. 2	No. 3
March 28, 1989	0.16	0.06	0.20
March 27, 1989	--	--	0.24
September 2, 1989	--	6.0	6.1
November 21, 1989	--	<u>0.5</u>	<u>0.5</u>
Average	0.16	2.18	1.76

NO_x EMISSION TESTS FOR SKC LIME KILNS

II SUMMARY AND DISCUSSIONS OF RESULTS

Measurements of NO_x emissions were made at the discharge stacks for Lime Kilns 1, 2, and 3 using a Thermoelectron Model 12A chemiluminescence NO_x analyzer following the protocol of EPA method 7E. The instrument span was set at 500ppm full scale and the appropriate standards for this range were used to calibrate the instrument. High, low and midrange standards were used and ambient air was used to zero the instrument. At the same time, a portion of the sample gas stream was directed to a Teledyne Model 720P oxygen analyzer and oxygen concentrations measured simultaneously with the NO_x measurements. Ambient air was used to span the oxygen analyzer, a midrange gas was utilized and zero was set using one of the NO_x standards.

The NO_x and O₂ concentrations were monitored for three hours at each kiln. The sampling point was the same as that utilized for particulate sampling and sample was drawn from the centroid of the stack in each case. Tables I - III present summaries of the NO_x and O₂ concentrations for the three kilns and the calculated mass emissions are also tabulated. NO_x emissions in lbs/MMBTU heat input was also calculated using the "F" factor for fuel oil.

Average Emissions were:

	<u>ppm</u>	<u>NO_x</u> <u>lbs/hr</u>	<u>lb/MMBTU</u>
No. 1 Kiln	193.8	15.34	0.294
No. 2 Kiln	101.6	10.67	0.210
No. 3 Kiln	181.3	15.85	0.297

Volumetric flow rates from particulate emission sampling were used for calculations.

TABLE I
 NITROGEN OXIDE (NOx) EMISSIONS SUMMARY

SEMINOLE KRAFT CORPORATION
 JACKSONVILLE, FLORIDA

NO. 1 LIME KILN

DATE	TIME PERIOD	LEVEL	OXYGEN %	NITROGEN OXIDES			VOLUMETRIC FLOW SCFM
				PPM	LBS/HR	LB/MMBTU	
2-20-92	1340-1440	MAX	6.5	190.0	15.04	0.284	11040
		MIN	2.5	167.5	13.26	0.251	
		AVG	5.6	177.5	14.05	0.266	
2-20-92	1440-1540	MAX	6.1	202.5	16.03	0.307	11040
		MIN	5.4	172.5	13.66	0.261	
		AVG	5.8	187.0	14.80	0.293	
2-20-92	1540-1640	MAX	6.1	222.5	17.61	0.342	11040
		MIN	5.9	210.0	16.62	0.323	
		AVG	6.0	216.8	17.16	0.333	
MEAN			5.8	193.8	15.34	0.294	11040

$$\text{LBS/HR} = \text{ppm} \times 10^{-6} \times \frac{\text{lb/lb - mole}}{395 \text{ ft}^3} \times 60 \frac{\text{min}}{\text{hr}} \times \text{SCFMD}; \text{ lb/lb - mole for NO}_x = 46.01$$

$$= \text{ppm} \times 10^{-6} \times \frac{46.01}{353} \times 60 \times \text{SCFMD} = \text{ppm} \times 10^{-6} \times 7.1704 \times \text{SCFMD}$$

$$\text{LB/MMBTU} = 1.1917 \times 10^{-7} \times 9190 \times \text{ppm} \times \frac{20.9}{20.9 - \%O_2}$$

TABLE II
 NITROGEN OXIDE (NO_x) EMISSIONS SUMMARY

SEMINOLE KRAFT CORPORATION
 JACKSONVILLE, FLORIDA

NO. 2 LIME KILN

DATE	TIME PERIOD	LEVEL	OXYGEN %	NITROGEN OXIDES			VOLUMETRIC FLOW SCFMD
				PPM	LBS/HR	LB/MMBTU	
2-20-92	1010-1110	MAX	9.3	35.0	9.99	0.191	14646
		MIN	9.1	37.5	9.19	0.176	
		AVG	9.5	30.8	9.54	0.182	
2-20-92	1110-1210	MAX	10.5	102.5	10.76	0.217	14646
		MIN	9.0	92.5	9.71	0.195	
		AVG	9.8	99.0	10.4	0.210	
2-20-92	1210-1310	MAX	10.5	130.0	13.65	0.271	14646
		MIN	9.0	95.0	9.99	0.198	
		AVG	9.9	115.0	12.03	0.239	
MEAN			9.7	101.6	10.67	0.210	14646

$$\text{LBS/HR} = \text{ppm} \times 10^{-6} \times \frac{\text{lb/lb - mole}}{385 \text{ ft}^3} \times 60 \frac{\text{min}}{\text{hr}} \times \text{SCFMD}; \text{ lb/lb - mole for NO}_x = 46.01$$

$$= \text{ppm} \times 10^{-6} \times \frac{46.01}{385} \times 60 \times \text{SCFMD} = \text{ppm} \times 10^{-6} \times 7.1704 \times \text{SCFMD}$$

$$\text{LB/MMBTU} = 1.1917 \times 10^{-7} \times 9190 \times \text{ppm} \times \frac{20.9}{20.9 - \%O_2}$$

TABLE III
 NITROGEN OXIDE (NOx) EMISSIONS SUMMARY
 SEMINOLE KRAFT CORPORATION
 JACKSONVILLE, FLORIDA
 NO. 3 LIME KILN

DATE	TIME PERIOD	LEVEL	OXYGEN %	NITROGEN OXIDES			VOLUMETRIC FLOW SCFM
				PPM	LBS/HR	LB/MMBTU	
2-21-92	0925-1025	MAX	7.6	177.2	15.49	0.300	12190
		MIN	7.0	139.4	12.13	0.236	
		AVG	7.4	162.2	14.18	0.275	
2-21-92	1025-1125	MAX	6.8	169.7	14.75	0.274	12190
		MIN	6.6	146.9	12.84	0.238	
		AVG	6.8	157.8	13.79	0.256	
2-21-92	1125-1225	MAX	6.6	169.9	14.85	0.272	12190
		MIN	6.5	160.1	13.99	0.256	
		AVG	6.6	164.7	14.40	0.264	
MEAN			6.9	161.6	14.12	0.265	12190

$$\text{LBS/HR} = \text{ppm} \times 10^{-6} \times \frac{\text{lb/lb - mole}}{385 \text{ ft}^3} \times 60 \frac{\text{min}}{\text{hr}} \times \text{SCFMD}; \text{lb/lb - mole for NO}_x = 46.01$$

$$= \text{ppm} \times 10^{-6} \times \frac{46.01}{353} \times 60 \times \text{SCFMD} = \text{ppm} \times 10^{-6} \times 7.1704 \times \text{SCFMD}$$

$$\text{LB/MMBTU} = 1.1917 \times 10^{-7} \times 9190 \times \text{ppm} \times \frac{20.9}{20.9 - \%O_2}$$

VOC Emission Factors for Lime Kilns

VOC Emissions (pg. 29 of NCASI TB No. 358)

$$\begin{aligned} \text{Average of 3 kilns tested: } & (0.060 + 0.30 + 0.037) \div 3 \\ & = 0.13 \text{ lb/MM Btu} \end{aligned}$$

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NATIONAL COUNCIL OF THE PAPER INDUSTRY FOR AIR AND STREAM IMPROVEMENT, INC., 260 MADISON AVENUE, NEW YORK, N.Y. 10016

A STUDY OF KRAFT PROCESS LIME KILN
TOTAL GASEOUS NON-METHANE ORGANIC EMISSIONS

TECHNICAL BULLETIN NO. 358

SEPTEMBER 1981

Table 6 presents TGNMO emission data in terms of ppm CH₄, lb/ton lime produced, and lb/ton unbleached pulp, along with kiln operation information. The TGNMO emissions expressed as lb/ton unbleached pulp was calculated by assuming 0.3 tons of lime are required to produce 1 ton of pulp. Average TGNMO emissions from the kilns were 0.41, 1.6, and 0.24 lb/ton CaO produced or 0.12, 0.48, and 0.07 lb/ton pulp produced for kilns A-C, respectively. In terms of energy input to the kilns, the TGNMO emissions were 0.060, 0.30, and 0.037 lb/10⁶ Btu, respectively. ←

Kiln B produced the highest emissions. The high TGNMO emission rate from this kiln likely resulted from organics introduced to the lime mud by the use of evaporator condensates in the lime mud washing system and at the scrubber. These organics were driven into the gas stream at the cold end of the kiln where the lime mud is dried at the scrubber.

Fresh water was being used in sprays to further wash the mud on the lime mud filter for the first 5 data entries for lime kiln B in Table 6. The TGNMO emissions were higher when fresh water was being used than when evaporator condensates were being used on the lime mud filter sprays. This result is contrary to what may be expected if the organic compounds emitted were introduced to the process through the wash water.

The TGNMO emissions from kiln A could also be due in part to organic compounds contained in the water associated with the lime mud rather than from uncombusted fuel. This kiln and causticizing system was operating over capacity and there were green liquor dregs in the lime mud. Dregs are composed of unburned carbon and products of corrosion contained in the smelt from the recovery furnace. Between 40 to 56% of dregs are lost upon ignition (6). It is possible that the unburned carbon contained volatile organic compounds and were emitted at the cold end of the kiln during drying.

To assess if the TGNMO emissions were associated with the lime mud or a product of combustion, a laboratory study on the lime mud organic content was performed. A measured quantity of lime mud from kiln A was heated to drive off water and organic compounds into the sample preparation system in the TGNMO analysis procedure. Results showed a potential emission rate of 0.44 lb TGNMO per ton lime produced when heated. Corrected field sampling results showed emissions of 0.37 lb/ton lime produced at the time the lime mud sample was collected.

It appears that organics present in the lime mud may be responsible for a significant portion of TGNMO emissions from this kiln. More studies of a similar nature on other lime kilns and a variety of lime muds are advisable to better define this potential relationship.

TGNMO emissions from kiln C were the lowest of the three kilns studied. This kiln burned noncondensable gases. It is not known whether burning of noncondensable gases contributes to TGNMO

APPENDIX D

**SO₂ EMISSION INVENTORY
USED IN MODELING ANALYSIS**

Table D-1. Summary of SO₂ Source Data Used in the Modeling Analysis (Page 1 of 4)

APIS Number	Facility/Source Description	APIS Source Number	Stack Data (m)		Operating Data		SO ₂ Emissions		SO ₂ PSD Source (EXP/CON)
			Height	Diameter	Temperature (K)	Velocity (m/sec)	(g/s)	(TPY)	
31DVL160202 Celotex									
	Gypsum Crushing System	01	7.6	0.49	321.9	18.90	0.26	9	-
	Calcining Kettle #1 - #3	07,11,12	22.9	0.91	727.4	4.88	0.83	30	-
	Wallboard Drying Kilns	08,13,14, 15.2	15.2	0.94	435.8	7.32	20.16	701	-
31DVL160213 U.S. Naval Station -Mayport									
	Boiler #1 - #3, BLDG 1241	01,02,03	12.2	0.91	544.1	14.33	16.33	544	-
	Boiler #1 - #2, BLDG 250	04,08	14.0	1.22	560.8	7.92	10.53	351	-
	Carbonaceous Fuel Boiler	07	18.3	1.52	533.0	7.01	0.54	19	-
	Hot Water Boiler B-1	11	15.5	0.24	477.4	7.32	0.08	3	-
31DVL160005 Anchor Hocking Glass									
	Glass Melt Furnace #1	01	17.4	0.91	511.3	19.51	2.05	68	-
	Glass Melt Furnace #2	02	17.4	0.82	522.4	14.02	2.41	84	-
	Glass Melt Furnace #3	03	33.2	1.71	429.7	11.58	10.40	361	-
	Glass Melt Furnace #4	04	35.7	1.58	510.8	11.89	3.75	131	-
31DVL160006 Anheiser Busch									
	Boilers #1 - #4	01 - 04	30.5	1.07	483.0	17.37	72.58	2120	-
	Grain Dryer #1	05	21.3	1.68	322.0	9.60	8.69	269	CON
	Grain Dryer #2	06	21.3	2.07	327.6	9.00	11.09	386	CON
	Anerobic & Bio Gas Flare	31,32	6.1	2.20	1000.0	15.00	5.66	54	CON
31DVL160039 SCM Glidco Organics									
	Boiler #3 (Retired)	03	12.2	1.10	658.0	10.06	8.49	295	EXP
	Boiler #4	04	12.2	1.10	405.2	14.02	19.91	692	-
	Boiler #5	05	15.2	1.10	535.8	12.80	20.92	728	-
	Boiler #6	06	15.2	1.22	513.6	10.36	24.44	850	-
	Boiler #7	11	13.7	1.22	449.7	5.49	4.01	139	CON
31DVL160042 Duval Asphalt Products*									
	Asphalt Batch Plant	01,02	11.6	0.98	376.3	31.09	36.54	1270	-
31DVL160001 JEA -SJRPP									
	Units #1 & #2	01,04	194.2	10.12	328.0	18.29	1175.96	40904	CON
31DVL160045 JEA -Northside									
	Steam Generator #1	01	73.2	5.03	400.8	23.16	690.35	23998	-
	Steam Generator #2	02	88.4	5.12	394.1	13.11	586.78	20398	-
	Steam Generator #3	03	103.6	7.01	438.6	19.20	1255.59	43647	-
	Combustion Turbines #3 -#6	06 - 09	10.1	6.55	779.7	18.29	231.60	8050	-
	Auxillary Boiler A	14	73.2	5.03	671.9	1.22	28.60	20	CON
	Auxillary Boiler B	13	76.2	5.03	588.6	0.30	8.47	294	CON

Table D-1. Summary of SO₂ Source Data Used in the Modeling Analysis (Page 2 of 4)

APIS Number	Facility/Source Description	APIS Source Number	Stack Data (m)		Operating Data		SO ₂ Emissions		SO ₂ PSD Source (EXP/CON)
			Height	Diameter	Temperature (K)	Velocity (m/sec)	(g/s)	(TPY)	
31DVL160046	JEA -Southside								
	Steam Generator #1 & #2	01,02	40.8	2.44	433.0	11.58	105.34	3,664	-
	Steam Generator #3	03	40.8	3.05	406.9	10.36	79.76	2,773	-
	Steam Generator #4	04	43.9	3.35	421.9	11.89	110.25	3,833	-
	Steam Generator #5	05	44.2	3.05	416.9	13.72	207.90	7,227	-
	Auxillary Boiler	10	6.7	0.49	493.6	17.68	1.31	46	-
31DVL160047	JEA -Kennedy								
	Combustion Turbine #3 - #6	03 - 06	13.7	2.77	651.9	8.84	191.14	6,646	-
	Steam Generator #8	07	45.7	3.20	394.1	7.92	74.98	2,607	EXP
	Steam Generator #9	08	45.7	3.20	398.0	7.92	74.98	2,607	-
	Steam Generator #10	09	41.5	2.74	410.8	15.54	198.95	6,918	-
	Auxillary Boiler	13	10.1	0.49	493.6	17.68	1.22	42	CON
31JAX450003	Container Corporation of Amer.								
	Power Boiler #7	15	103.6	4.42	489.1	13.52	154.40	5,367	CON
	Power Boiler #5	06	78.3	3.35	454.1	15.35	190.40	6,619	CON
	Recovery Boiler #4	07	75.9	3.76	513.0	16.55	35.10	1,220	CON
	Recovery Boiler #5	11	87.8	2.74	495.8	14.36	31.20	1,084	CON
	Lime Kiln #4	21	31.1	1.45	435.8	21.07	3.38	117	CON
	Smelt Dissolving Tank #4	14	75.9	1.83	339.7	5.16	0.71	25	CON
	Smelt Dissolving Tank #5	14	87.8	1.22	345.0	16.77	0.71	25	CON
	Power Boiler #3 & #4	05	69.2	2.44	483.0	16.86	144.70	5,030	EXP
	Power Boiler #5	06	69.2	3.35	479.7	16.25	169.97	5,910	EXP
	Recovery Boiler #4	07	75.9	3.51	493.0	18.78	35.10	1,220	EXP
	Recovery Boiler #3	??	40.8	2.74	389.7	13.26	10.50	365	EXP
	Lime Kiln #2	??	13.4	1.07	360.8	12.25	1.30	45	EXP
	Lime Kiln #3	??	13.4	1.37	359.7	17.59	1.30	45	EXP
	Smelt Dissolving Tank #4	??	69.5	1.83	349.7	5.21	0.20	7	EXP
	Smelt Dissolving Tank #3	??	33.2	0.61	359.7	5.82	0.70	24	EXP
31DVL160003	Jefferson Smurfit								
	Power Boiler #10	11	61.0	3.05	341.5	9.70	36.48	1,265	CON
	Recovery Boiler #9	05	53.3	3.20	409.8	22.86	5.52	834	CON
	Smelt Dissolving Tank #9	04	53.3	1.65	362.0	4.32	0.48	17	-
	Lime Kiln 1, 2	06, 07	15.8	1.45	347.0	6.70	0.68	34	EXP
	Lime Kiln #3	23	60.7	1.37	340.2	12.22	1.31	37	CON
	Power Boilers	??	76.2	3.75	455.4	8.04	36.48	1,268	EXP
	Recovery Boiler #9 (Baseline)	05	53.3	3.20	389.8	11.56	16.81	584	EXP
31DVL160069	Georgia Pacific								
	Boiler	01	11.6	0.61	477.4	9.14	2.58	90	-
	Boiler	02	4.9	0.61	505.2	6.40	3.36	117	-

Table D-1. Summary of SO₂ Source Data Used in the Modeling Analysis (Page 3 of 4)

APIS Number	Facility/Source Description	APIS Source Number	Stack Data (m)		Operating Data		SO ₂ Emissions		SO ₂ PSD Source (EXP/CON)
			Height	Diameter	Temperature (K)	Velocity (m/sec)	(g/s)	(TPY)	
31DVL160072	U.S. Gypsum								
	Wallboard Kiln #2	33	13.7	1.07	421.9	28.96	12.60	416	-
	Calcining Kettles #1 - #7	36	28.3	1.07	505.2	0.91	18.38	607	-
	Dowtherm Heater	41	20.7	0.91	733.0	6.40	1.22	40	-
	Rotary Kiln	48	26.8	0.49	339.1	59.13	4.08	137	-
	Wall board Kiln #3	59	29.0	2.04	369.1	1.52	0.02	1	-
	Combustion Turbine #1 - #2	68,69	36.6	1.01	346.9	24.99	0.01	0.3	-
	Boarding Dry End Exhaust #1	76	11.9	1.10	376.3	14.94	0.001	0.02	-
31DVL160148	Occidental Chemical								
	Bulk Ship Loading Conveyor	01	3.7	0.91	298.0	52.12	2.19	76	-
	Phosphate Railcar Unloading	02	3.7	0.91	298.0	52.12	2.19	76	-
	Hot Water Boiler #1 & #2	03,04	6.1	0.30	355.2	11.89	4.23	148	-
	Steam Boilers	05	18.3	0.91	427.4	10.06	3.86	134	-
31DVL160146	J. W. Swisher								
	Boilers #1 - #3	01	18.3	1.22	505.2	0.61	4.26	148	-
	Boiler #4	02	9.1	0.40	505.2	7.01	1.05	36	-
	Boiler #5	03	9.1	0.30	477.4	7.62	1.76	60	-
	Boiler #6	04	9.1	0.40	477.4	6.10	1.40	48	-
31DVL160010	Baptist Medical Center								
	Gas Fired Turbine	03	15.2	0.91	435.8	45.72	3.68	128	-
	Combustion Turbine #2	05	15.2	1.07	435.8	24.69	1.34	46	-
	Gas Fired Turbine #3	06	15.2	1.07	435.8	37.49	4.94	172	-
	Reciprocative Engine	07,08	10.7	0.21	449.7	43.28	0.00	0.02	-
	Dual Fuel Turbine	12	15.2	1.07	435.8	21.34	3.93	137	-
31DVL160004	Maxwell House								
	Boiler #1	03	45.7	0.98	606.9	0.61	3.96	138	-
	Boiler #2	04	45.7	0.43	396.9	67.97	7.52	261	-
	Boiler #2 (Retired)	13	15.2	0.91	402.4	20.73	2.44	85	EXP
31DVL160155	Gulf Life Insurance								
	Boilers #1 & #2	01	18.3	0.91	421.9	2.74	7.82	91	-
	Duel Fuel Engine	02	18.3	0.30	852.4	56.08	0.97	12	-
31DVL160043	Duval Asphalt Products								
Asphalt Batch Plant	01	11.6	0.98	376.3	31.09	11.06	384	-	
31DVL450004	ITT Rayonier								
	Power Boilers #1 - #3	01 - 03	55.0	3.05	329.0	9.75	173.88	5,532	CON
	Recovery Boiler	06	76.2	2.29	324.7	17.37	40.60	1,352	-
	Power Boilers #1-#3 (Baseline)	01 - 03	37.2	3.05	329.0	9.75	173.88	1,383	EXP

Table D-1. Summary of SO₂ Source Data Used in the Modeling Analysis (Page 4 of 4)

APIS Number	Facility/Source Description	APIS Source Number	Stack Data (m)		Operating Data		SO ₂ Emissions		SO ₂ PSD
			Height	Diameter	Temperature (K)	Velocity (m/sec)	(g/s)	(TPY)	Source (EXP/CON)
31DVL160071	Union Camp								
	Waste Product Incinerator	01	16.2	1.07	699.7	9.45	9.69	337	-
	#2 Boiler	03	15.5	1.22	585.8	0.91	0.01	0.2	-
	"B" and "C" Myrcene Units	04 - 05	7.9	0.30	699.7	3.66	0.05	2	-
	"D" Myrcene Unit	06	7.9	0.15	699.7	14.02	0.04	1	-
	C E Boiler	07	9.1	1.04	584.1	0.61	0.98	34	-
	#3 Boiler	14	20.1	1.22	585.8	11.58	6.82	237	-
	"A" Myrcene Unit	26	18.3	0.91	538.6	1.22	0.13	4	-
31DVL160198	E S Metals								
		02	25.6	0.91	324.7	15.24	18.77	651	EXP
		03	24.4	1.22	355.2	3.96	5.38	187	EXP
GA	Gilman Paper Company **								
	Power Boiler No. 3		83.8	4.30	450.2	2.82	87.29	3034	CON
	Coal Fired Boiler		45.7	3.05	326.3	7.77	88.75	3085	CON
	Recovery Boiler No. 2		54.9	2.13	424.7	16.76	7.60	264	CON
	Recovery Boiler No. 3		54.9	2.13	424.7	16.76	7.60	264	CON
	Recovery Boiler No. 4		76.2	2.59	410.8	12.19	15.80	549	CON
	Lime Kiln		30.5	1.52	350.2	11.64	2.13	74	CON
	Power Boilers No. 1 - 3		83.8	4.30	449.7	7.28	281.01	9768	EXP
	Power Boiler No. 4		36.6	1.80	699.7	19.99	59.90	2082	EXP
	Recovery Boiler No. 2		47.2	2.30	425.8	13.11	7.60	264	EXP
	Recovery Boiler No. 3		53.3	1.60	394.1	25.21	7.60	264	EXP
	Recovery Boiler No. 4		76.2	2.60	427.4	22.10	15.80	549	EXP
31DVL160???	AES Cedar Bay								
	CFB Boilers 1 - 3		122.7	4.27	402.6	33.22	241.09	4015	CON
	Limestone Dryers		19.2	1.04	355.4	21.34	1.26	43.8	CON

* Formerly Wiley Jackson Company.
** Smelt Dissolving Tanks and Bark Boilers Excluded

APPENDIX E

**SOURCE CONTRIBUTION TO MAXIMUM
24-HOUR AND 3-HOUR AAQS AND PSD IMPACTS**

Table E-1. Source Contributions to Key Short-Term AAQS and PSD Maximum Impacts (Page 1 of 2)

AAQS: 24 Hour

Total Modeled Concentration: 421.95 $\mu\text{g}/\text{m}^3$ at (230°, 8500m), End Date: 83102124

SKC Package Boilers:	0.19 $\mu\text{g}/\text{m}^3$
AES Cedar Bay:	0.55
Container Corp.:	6.87
Gilman Paper:	0.69
ITT Rayonier:	4.92
Anheuser Busch:	51.27
SCM Glidco:	355.86
Georgia Pacific:	1.60

AAQS: 3-Hour

Total Modeled Concentration: 864.4 $\mu\text{g}/\text{m}^3$ at (220°, 5000m), End Date: 83030606

Jefferson Smurfit:	33.84
JEA-Kennedy:	460.44
US Gypsum:	368.52
Occidental Chemical:	1.60

PSD Class II: 24-Hour

Total Modeled Concentration: 133.5 $\mu\text{g}/\text{m}^3$ at (250°, 4500m), End Date: 83101024

SKC Package Boilers:	0.21 $\mu\text{g}/\text{m}^3$
SKC offsets:	-8.63
AES Cedar Bay:	0.17
Gilman Paper:	0.19
ITT Rayonier:	-0.10
Anheuser Busch:	141.66

PSD Class II: 3-Hour

Total Modeled Concentration: 447.48 $\mu\text{g}/\text{m}^3$ at (250°, 3900m), End Date: 86052415

Anheuser Busch:	447.48
-----------------	--------

Table E-1. Source Contributions to Key Short-Term AAQS and PSD Maximum Impacts (Page 2 of 2)

PSD Class I: 24-Hour

Total Modeled Concentration: 4.06 $\mu\text{g}/\text{m}^3$ at (392000, 3400000), End Date: 85041224

SKC Package Boilers:	0.22 $\mu\text{g}/\text{m}^3$
AES Cedar Bay:	1.17
SKC offsets:	-2.66
Jefferson Smurfit:	-0.01
Gilman Paper:	0.18
JEASJ:	4.89
JEANS:	0.29
JEAKEN:	-0.10
Anheuser Busch	0.21
SCM Glidco:	-0.01
ES Metals:	-0.12

PSD Class I: 3-Hour

Total Modeled Concentration: 19.38 $\mu\text{g}/\text{m}^3$ at (391000, 3390000), End Date: 84042115

SKC Package Boilers:	0.41 $\mu\text{g}/\text{m}^3$
AES Cedar Bay:	2.93
SKC offsets:	-4.56
JEASJ:	19.66
JEANS:	0.58
JEAKEN:	-0.04
Anheuser Busch:	0.34
Container Corp.:	0.05

APPENDIX F
COST ALGORITHMS FOR FGD PROCESSES

United States
Environmental Protection
Agency

Office of Air Quality
Planning and Standards
Research Triangle Park NC 27711

EPA-450/3-82-021
August 1982
PB83-119438

Air



Costs of Sulfur Dioxide, Particulate Matter, and Nitrogen Oxide Controls on Fossil Fuel Fired Industrial Boilers

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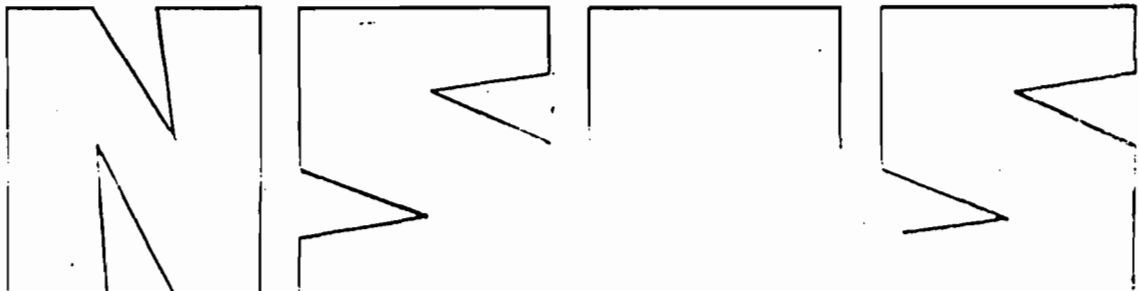


TABLE A-2. NOMENCLATURE USED IN COST ALGORITHMS

1. Capital Costs (1978 dollars)

EQUIP = Equipment
INST = Installation
TD = Total Direct
IND = Indirect (Engineering, Field, Construction, Start-up,
and other miscellaneous costs)
TDI = Total Direct and Indirect
CONT = Contingencies
TK = Turnkey
LAND = Land
WC = Working Capital
TOTL = Total Capital

2. Operation and Maintenance Costs^a (1978 dollars/year)

DL = Direct Labor
SPRV = Supervision Labor
MANT = Maintenance Labor
SP = Spare Parts
ELEC = Electricity
UC = Utilities and Chemicals
WTR = Water
SW = Solid Waste Disposal
SLG = Sludge Waste Disposal
LW = Liquid Waste Disposal
SC = Sodium Carbonate
LMS = Limestone
LIME = Lime
FUEL = Fuel
TDOM = Total Direct Operation and Maintenance
OH = Overhead
TOTL = Total Operation and Maintenance

3. Annualized Costs (1978 dollars/year)

CR = Capital Recovery
WCC = Working Capital Charges
MISC = Miscellaneous (G & A, Taxes, Insurance)
TCC = Total Capital Charges
TOTL = Total Annualized Charges

TABLE A-2. (Continued)

4. Boiler Specifications

Q = Thermal Input (10^6 Btu/hr) (MW)^c
 FLW = Flue Gas Flowrate (acfm) (m^3/s)^c
 CF = Capacity Factor (-)
 BCRF = Capital Recovery Factor for Boiler System

5. Fuel Specifications

FC = Fuel Cost ($\$/10^6$ Btu) ($\$/MJ$)^c
 H = Heating Value (Btu/lb) (KJ/kg)^c
 S = Sulfur Content (percent by weight)
 A = Ash Content (percent by weight)
 N = Fuel Nitrogen Content (percent by weight)

6. SO₂ Control Specifications

UNCSO2 = Uncontrolled SO₂ Emissions ($1b/10^6$ Btu) (ng/J)^c
 CTRS02 = Controlled SO₂ Emissions ($1b/10^6$ Btu) (ng/J)^c
 EFFSO2 = SO₂ Removal Efficiency (percent)
 CRFSO2 = Capital Recovery Factor for SO₂ Control System

7. PM Control Specifications

UNCPM = Uncontrolled PM Emissions ($1b/10^6$ Btu) (ng/J)^c
 CTRPM = Controlled PM Emissions ($1b/10^6$ Btu) (ng/J)^c
 EFFPM = PM Removal Efficiency (percent)
 CRFPM = Capital Recovery Factor for PM Control System

8. Cost Rates (used in FGD algorithms)^{b,c}

ELECR = Electricity Rate₃ ($\$/kw-hr$)
 WTRR = Water Rate ($\$/m^3$)
 ALIMR = Lime Rate ($\$/kg$)
 ALSR = Limestone Rate ($\$/kg$)
 SASHR = Sodium Carbonate Rate ($\$/kg$)
 SLDGR = Sludge Disposal Rate ($\$/kg$)
 SWDR = Solid Waste Disposal Rate ($\$/kg$)
 LWDR = Liquid Waste Disposal Rate ($\$/m^3$)

9. Miscellaneous

S1 = Heat Specific Sulfur Removal (kg SO₂/100 MJ)
 S2 = Time Specific Sulfur Removal (kg SO₂/0.1 hr)
 LF = Labor Factor (-)

TABLE A-2. (Continued)

10. NO_x Control Specifications

FFAC = F-Factor (dscf/10⁶ Btu)
UNCEA = Uncontrolled Excess Air (%)
CTREA = Controlled Excess Air (%)
PRCT = Percent Flame Extension Due to Staging
DELT = Change in the flue gas exit temperature due to the
elimination of the air preheater or a reduction
in its effectiveness
CRFNO_x = Capital Recovery Factor for NO_x Control System

^aCost categories are not mutually exclusive. For example, some costing routines include electricity and waste cost in the utilities category while other calculate these cost separately.

^bAll other algorithms assume these rates to be constants; FGD algorithms allow the rates to be varied.

^cFGD algorithms use metric units.

^d(-) factor presented as fraction not as percent.

TABLE A-21. COST EQUATIONS⁴ FOR SODIUM THROWAWAY FGD SYSTEMS^a

Routine Code: NATH

Capital Costs:^b

$$\text{TDI} = 44,000 (\text{FLW})^{0.62} + 20,600 (\text{S1})^{0.427}$$

$$\text{TK} = 1.48 \text{TDI} + 74,400 \quad \text{if } Q \leq 58.6$$

$$= 1.48 \text{TDI} + 112,800 \quad \text{if } Q > 58.6$$

Annual Costs:^{b,c}

$$\text{DL} = 105,000$$

$$\text{SPRV} = 21,000$$

$$\text{MANT} = 0.08 \text{TDI}$$

$$\text{ELEC} = 8,760 \text{CF ELEC} [4.26 (\text{FLW}) - 2.56] [0.65 + 0.31 \text{S1}]$$

$$\text{WTR} = 8,760 \text{CF WTR} [0.776 (\text{FLW}) - 0.720] [0.213 + 0.684 \text{S1}]$$

$$\text{SW} = 8,760 \text{CF SWDR} [0.16 + 4.53 \text{S2}]$$

$$\text{SC} = 8,760 \text{CF SASHR} [8.03 + 3.5 \text{S2}]$$

$$\text{LW} = 8,760 \text{CF LWDR} (0.0860 \text{S2})$$

^aFGD algorithms use metric units as noted in Table A-2.

^b $\text{S1} = \text{S} * \text{EFFSO2} * 100/\text{H} \text{ [kg/100MJ]}$

^c $\text{S2} = \text{S1} * \text{Q}/3.6$

TABLE A-22. COST EQUATIONS⁵ FOR LIME SPRAY DRYING
FGD SYSTEMS WITH PM REMOVAL^a

Routine Code: DS

Capital Costs:^c

$$\text{TDI} = 55,600 (\text{FLW})^{0.51} + 21,600 (\text{S2})^{0.40} + 33,327 (\text{FLW})^{0.89}$$

$$\text{TK} = 1.48 \text{ TDI} + 110,400 \quad \text{if } Q \leq 58.6$$

$$1.60 \text{ TDI} \quad \text{if } Q > 58.6$$

Annual Costs:^{b,c}

$$\text{DL} = 105,000$$

$$\text{SPRV} = 21,000$$

$$\text{MANT} = 0.08 [55,600 (\text{FLW})^{0.51} + 21,600 (\text{S2})^{0.40}] + 14,840 + 1.23 Q^2 + 578 (\text{FLW})^{0.997}$$

$$\text{ELEC} = 8,760 \text{ CF} * \text{ELECR} [6.14 (\text{FLW})^{0.82}]$$

$$\text{WTR} = 8,760 \text{ CF} * \text{WTRR} [0.144 (\text{FLW})]$$

$$\text{SW} = 8,760 \text{ CF} * \text{SWDR} [(0.035 * \text{EFFF02} + 3.02) (\text{S2}) + \text{UNCPM} * \text{EFFPM}/100]$$

$$\text{LIME} = 8,760 \text{ CF} * \text{ALIMER} (1.88 \ln(\text{EFFF02}) - 5.3) \text{ S2}$$

^aFGD costs use metric units as noted in Table A-2.

^bS1 = S1 * EFFF02 * 100/H

^cS2 = S1 * Q/3.6

Z 392 979 001



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Do not use for International Mail
(See Reverse)

PS Form 3800, March 1993

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Street and No.	Cortel Hoffman
P.O., State and ZIP Code	Gene Cole
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Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
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3. Article Addressed to: Scott Shirley Cortel Hoffman, Gene Cole PO Box 6507 Tallahassee, FL 32314-6507		4a. Article Number Z 392 979 001	
4b. Service Type <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise		7. Date of Delivery	
5. Signature (Addressee) 		8. Addressee's Address (Only if requested and fee is paid)	
6. Signature (Agent) 			

Thank you for using Return Receipt Service.

Mr. Tim Smith
May 26, 1995
Page 2

application for transfer of permits as soon as possible.

Thank you for your assistance in this matter. Please call me if you have any questions. In my absence please contact Mr. Timothy P. Atkinson.

Sincerely,



Segundo J. Fernandez

SJF:nhg

cc: Howard Rhodes
Clair Fancy
Scott Braswell
Joe Eskridge
Les Lederer
Craig Hurd
John West
Ernest Frey

o.a.\tpa\smith.lt

① ~~Bruce Mitchell~~ - FYI

RR

(any action needed?)
that you know of

Seems that A# has been
handled this along with Patty.
Ben

~~② AL~~

③ Kinani - To referenced AC, PSD files

~~Al & Betty,~~

19 June 95

Do we handle a, b, d, & e. or just a & d? Please respond.

If only a & d, a is complete and a draft for d. is attached for proof.

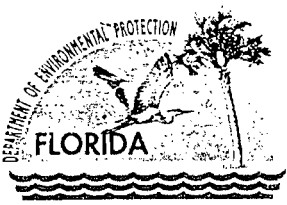
Thanks,

Just the one for Xanaw which they submit "appropriate forms."

Kimani - Did we do this? I did part a. I'll check Kim is sending a part-D it out today.

Talked with O-H (Mr. Fernandez & Mr. Shirley) 6/22/95 they have not submitted forms for part d. because it is no longer active. They have ~~Requested~~ sent forms for AC16-222359 and we have responded. No further action required unless it is initiated by Store-Container Corp. KAW Totolo

You got appropriate forms for one of them I think. Just process the ones we get forms for. al



Department of Environmental Protection

Lawton Chiles
Governor

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

Virginia B. Wetherell
Secretary

July 28, 1994

Mr. L.A. Stanley, General Manager
Seminole Kraft Corporation
9469 Eastport Road
Jacksonville, Florida 32229

Duval County - AP
Seminole Kraft Corporation
Boiler Shutdown and Submission
of Permits

This letter is a reminder to return the operating permits for bark boilers 1 and 2 and power boilers 1,2,3 to the Division of Air Resource Management, Bureau of Air Regulation. In addition, notice of shutdown of these boilers shall be made to the Jacksonville Regulatory and Environmental Services Division.

Seminole Kraft was notified of the compliance of Cedar Bay Cogenerating boilers in a letter dated June 28, 1994. The activities noted above should have been completed within 30 days of said notice.

Please provide copies of the correspondence you have indicating compliance with return of permits and boiler shutdown to the Department of Environmental Protection at the address noted above.

Thank you for your cooperation.

Sincerely,

Morton Benjamin
Compliance Engineer

CC: Mr. Kevin Grant, U.S. Generating
Mr. Hamilton Oven, P.E., FDEP
Mr. Claire Fancy, P.E., FDEP
Mr. Steve Pace, P.E., RESD

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

ROUTING AND TRANSMITTAL SLIP

TO: (NAME, OFFICE, LOCATION)

- 1. *Claire Fancy P.E.*
- 2.
- 3. *Alan*
- 4. **RECEIVED**

Bruce - ^{8/1}
This must have
crossed in the mail.
Alan

AUG 1 1993

Bureau of
Air Regulation

FROM:

Alan Jay

DATE

PHONE

Is your RETURN ADDRESS completed on the reverse side?

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I wish to receive the following services (for an extra fee):

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
L. A. Stanley, Gen Mgr.
Seminole Kraft Corp
9469 E Post Rd
Jacksonville, FL
32229

4a. Article Number
P 230 524 368

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

7. Date of Delivery
7-13-93

5. Signature (Addressee)

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

6. Signature (Agent)
L. Smith

PS Form 3811, December 1991 *U.S. GPO: 1992-323-402

DOMESTIC RETURN RECEIPT

Thank you for using Return Receipt Service.

P 230 524 368



Receipt for Certified Mail

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

Sender <i>Seminole Kraft</i>	
Street and No. <i>JAK, FL</i>	
City, State and ZIP Code <i>JA Stanley</i>	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date <i>AC 16-222359</i> <i>PSD-FI-198</i> <i>7-13-93</i>	

PS Form 3800, June 1991

DRAFT

Revised BACT
Seminole Kraft Corp.
Page Four

Details of the Analysis May be Obtained by Contacting:

Preston Lewis, P.E., BACT Coordinator
Department of Environmental Regulation *Protection*
Bureau of Air Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended by:

Approved by:

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

Virginia B. Wetherell, Secretary
Dept. of Environmental Regulation *Protection*

Date 1993

Date 1993

Rip Colleary,

7-6

wants to look at Note,

Clair

8:30 AM - Thanks Clair. will
contact SK and get back to you this AM.
Please hold til then. (Type noted on 1



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

RECEIVED

JUN 14 1993

Division of Air
Resources Management

4APT-AEB

JUN - 8 1993

RECEIVED

JUN 11 1993

D.E.R. OFFICE
OF THE SECRETARY

Mr. Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Seminole Kraft Corporation, Duval County (PSD-FL-198)

Dear Mr. Fancy:

This is to acknowledge receipt of the Revised Technical Evaluation and Preliminary Determination, including the draft Prevention of Significant Deterioration (PSD) permit, for the above referenced facility, by your letter dated April 20, 1993. The existing Seminole Kraft Corporation facility is a 100-percent recycled fiber paper mill. The proposed modification to the existing facility will be the addition of three package boilers, to be fired with fuel oil and natural gas.

Your determination proposes to limit SO₂ emissions through limiting the sulfur content of the distillate fuel oil and to limit beryllium emissions through efficient combustion and the use of ash free and low ash fuels.

We have reviewed the package as submitted and have the following comments concerning the draft permit. In Specific Condition 4 of the permit, the emission limit for SO₂ should include a basis for the 25 tons per year limit, in a lb/MMBtu and lbs/hr increment (as established in Specific Condition 3 for NO_x emissions). In addition, we recommend a limit on the gallons of fuel oil used in any 12 consecutive month period, on the basis of 0.05% sulfur content and the maximum annual SO₂ emission limit. For compliance purposes, monthly recordkeeping requirements should be included to enable data to be obtained for fuel oil usage on a 12 month rolling annual average basis.

Thank you for the opportunity to review and comment on the package. If you have any questions or comments, please contact Mr. Scott Davis of my staff at (404) 347-5014.

Sincerely yours,

Jewell A. Harper, Chief
Air Enforcement Branch
Air, Pesticides, and Toxics
Management Division

cc: B. Mitchell

- J. Reynolds
- C. Walladay
- J. Cole, NE Dist
- R. Robinson, DEABD
- D. Buff, KBN

- B. Colborn, GEPD
- C. Nurd, SRC
- R. Donlan
- CHF/SB/GPL

} 6-15-93

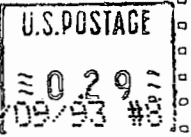
UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION IV
345 COURTLAND STREET
ATLANTA GEORGIA 30365

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

U.S. OFFICIAL MAIL

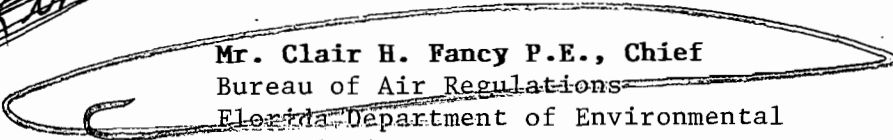


PENALTY
FOR
PRIVATE
USE \$300



ATL GA 30365

JUN 09 1993 #3



Mr. Clair H. Fancy P.E., Chief
Bureau of Air Regulations
Florida Department of Environmental
Regulations
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400



RECEIVED

MAY 27 1993

Division of Air Resources Management

FLORIDA PUBLISHING COMPANY
Publisher
JACKSONVILLE, DUVAL COUNTY, FLORIDA

STATE OF FLORIDA }
COUNTY OF DUVAL }

Before the undersigned authority personally appeared _____

Coleman Kane

who on oath says that he is

Contract Sales Rep

of The Florida Times-Union.

a daily newspaper published at Jacksonville in Duval County, Florida; that the attached copy of advertisement, being a _____
Legal Notice

in the matter of _____ Notice Of Intent To Issue Permit

in the _____ Court,

was published in THE FLORIDA TIMES-UNION in the issues of _____

May 11, 1993 (Correction)

Affiant further says that the said The Florida Times-Union is a newspaper published at Jacksonville, in said Duval County, Florida, and that the said newspaper has heretofore been continuously published in said Duval County, Florida, The Florida Times-Union each day, has been entered as second class mail matter at the postoffice in Jacksonville, in said Duval County, Florida, for a period of one year next preceeding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in said newspaper.

Sworn to and subscribed before me this 11 day of May 1993

Vera Janie Likens
Notary Public,
State of Florida at Large.

Coleman Kane

My Commission Expires VERA JANIE LIKENS
MY COMMISSION # CC 222558 EXPIRES
June 1, 1996
BONDED THRU TROY FAIR INSURANCE, INC.

DA 444



STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL REGULATION
NOTICE OF INTENT TO ISSUE PERMIT

The Department of Environmental Regulation hereby gives notice of its intent to issue permits to Seminole Kraft Corporation, 9469 Eastport Road, Jacksonville, Florida 32229, to construct three packaged boilers at their facility in Jacksonville, Duval County, Florida. The maximum predicted all sources PSD Class II sulfur dioxide increments which would be consumed after this project is completed are the following: 5.0 ug/m3, annual average, or 25% of the available annual increment of 20 ug/m3, 133 ug/m3, 24-hours average or 146% of the available 24-hour increment of 91 ug/m3, and 447 ug/m3, 3-hour average or 87% of the available 3-hour increment of 512 ug/m3. Seminole Kraft and Cedar Bay combined do not contribute significantly to any predicted violations of the PSD Class II 24-hour increment. The maximum predicted PSD Class I sulfur dioxide increments which would be consumed are the following: 0.0 ug/m3, annual average, or 0% of the available annual increment 2.0 ug/m3; 4.1 ug/m3, 24 hour average or 82% of the available 24 hour increment of 5.0 ug/m3, and 19 ug/m3, 3-hour average or 76% of the available 3-hour increment of 25 ug/m3. A determination of Best Available Control Technology (BACT) was required. The Department is issuing this Intent to Issue for the reasons stated in the Revised Technical Evaluation and Preliminary Determination. The applications are available for public inspection during business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at: Department of Environmental Regulation, Bureau of Air Regulation, 111 South Magnolia Drive, Tallahassee, Florida
Department of Environmental Regulation, Northeast District, 7825 Baymeadows Way, Jacksonville, Florida 32256-3767
Duval County Air Quality Division, 421 West Church Street, Suite 412, Jacksonville, Florida 32202-4111
Any person may send written comments on the proposed action to Mr. Preston Lewis at the Department's Tallahassee address. All comments received within 30 days of the publication of this notice will be considered in the Department's final determination. Further, a public hearing can be requested by any persons. Such requests must be submitted within 30 days of this notice

cc: G. Reynolds
B. Mitchell
C. Halladay
G. Cole, WED
R. Robinson, DCA
G. Harper, EPA
G. Bunyak, WPS

Is your RETURN ADDRESS completed on the reverse side?

SENDER: • Complete items 1 and/or 2 for additional services. • Complete items 3, and 4a & b. • Print your name and address on the reverse of this form so that we can return this card to you. • Attach this form to the front of the mailpiece, or on the back if space does not permit. • Write "Return Receipt Requested" on the mailpiece below the article number. • The Return Receipt will show to whom the article was delivered and the date delivered.		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.	
3. Article Addressed to: <i>L A Stanley, Gen Mgr Semindley Craft Corp. 9469 E Port Rd Jacksonville, FL 32229</i>		4a. Article Number <i>P 360 528 705</i>	
5. Signature (Addressee) <i>[Signature]</i>		4b. Service Type <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise	
6. Signature (Agent) <i>[Signature]</i>		7. Date of Delivery <i>4/26/93</i>	
		8. Addressee's Address (Only if requested and fee is paid)	

Thank you for using Return Receipt Service.

PS Form 3811, December 1991 *U.S. GPO: 1992-323-402 **DOMESTIC RETURN RECEIPT**

P 360 528 705

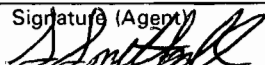


Receipt for Certified Mail
 No Insurance Coverage Provided
 Do not use for International Mail
 (See Reverse)

Sent to <i>LA Stanley</i>	
Street and No. <i>Seminole Craft</i>	
P.O. State and ZIP Code <i>Jax, FL</i>	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date <i>AC 16-222359</i> <i>PSD-FI-198</i>	

PS Form 3800, June 1991

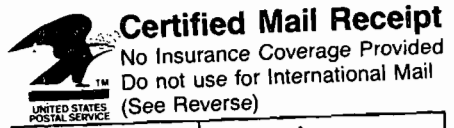
Is your RETURN ADDRESS completed on the reverse side?

SENDER: • Complete items 1 and/or 2 for additional services. • Complete items 3, and 4a & b. • Print your name and address on the reverse of this form so that we can return this card to you. • Attach this form to the front of the mailpiece, or on the back if space does not permit. • Write "Return Receipt Requested" on the mailpiece below the article number. • The Return Receipt will show to whom the article was delivered and the date delivered.		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.	
3. Article Addressed to: CA Stanley, GM Semirole Craft Corp 94169 E Port Rd Jacksonville, FL 32229		4a. Article Number P 710 058 520	
5. Signature (Addressee)		4b. Service Type <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise	
6. Signature (Agent)  4-2-93		7. Date of Delivery	
8. Addressee's Address (Only if requested and fee is paid)		8. Addressee's Address (Only if requested and fee is paid)	

Thank you for using Return Receipt Service.

PS Form 3811, December 1991 *U.S. GPO: 1992-323-402 **DOMESTIC RETURN RECEIPT**

P 710 058 520



Sent to CA Stanley	
Street & No. Semirole Craft	
P.O., State & ZIP Code AX, FL	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Address of Delivery	
TOTAL Postage & Fees	\$
Postmark or Date AC 16-222359 PSD-F1-198	4-2-93

PS Form 3800, June 1990

Best Available Copy

GENERAL:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt Fee will provide you the signature of the person delivered to and the date of delivery.

I also wish to receive the following services (for an extra fee):

1. Addressee's Address

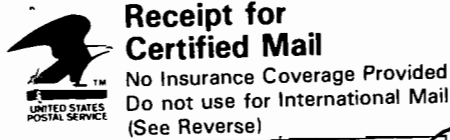
2. Restricted Delivery

Consult postmaster for fee.

<p>3. Article Addressed to:</p> <p><i>L.A. Stanley, Men. Mgr. Seminole Kraft Corp 9469 E. Post Rd 26998 Jacksonville, FL 32229</i></p> <p style="text-align: center;"><i>32226 32228</i></p>	<p>4a. Article Number</p> <p><i>0062 921 968</i></p> <p>4b. Service Type</p> <p><input type="checkbox"/> Registered <input type="checkbox"/> Insured</p> <p><input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD</p> <p><input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise</p> <p>7. Date of Delivery</p> <p><i>2-24-93</i></p>
<p>5. Signature (Addressee)</p>	<p>8. Addressee's Address (Only if requested and fee is paid)</p>
<p>6. Signature (Agent)</p> <p><i>[Signature]</i></p>	

PS Form 3811, November 1990 ☆ U.S. GPO: 1991-287-066 **DOMESTIC RETURN RECEIPT**

P 062 921 968



Sent to	<i>L.A. Stanley</i>	
Street and No.	<i>S.K.C.</i>	
P.O., State and ZIP Code	<i>Jax, FL</i>	
Postage		\$
Certified Fee		
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to Whom & Date Delivered		
Return Receipt Showing to Whom, Date, and Addressee's Address		
TOTAL Postage & Fees		\$
Postmark or Date	<i>2-11-93</i>	
<i>AC 16-222359 PSD-FI-198</i>		

PS Form 3800, June 1991

Things we discussed at . . .



TREASURE ISLAND INN

1/27

Bruce -

Is it necessary to
send this out? Did they
ask for letter? Has Richard
Donelan said OK on it? I
can't sign anything on Semritz
or AES unless Donelan has
said it is OK - Clair

1-26-93

Clair,

The result of a project
that I have been working on
since Sept '90; and, is tied
into the SKC project of
3 new pkg. boilers (F. Reynolds
project).

Johnston

P.S. I have kept F. Reynolds
updated on this project.

Ben

Department of Environmental Regulation
Routing and Transmittal Slip

To: (Name, Office, Location)

1. Richard Donlan
- 2.
- 3.
- 4.

Remarks:

As part of the SKC's phy boiler evaluation, contemporary emissions credits were requested (see attached Tables), which is a project that I have been evaluating. The attached proposed letter is the result of ~~the~~ my evaluation. Clair will not sign without your blessing.

Please review and advise. If OK, please say so. Call me for pick-up. Thanks,

Burr

P.S. Please say hello to Cindy.

OK RTD
1/28/93

From

Burr Mitchell

Date

1-28-93

Phone

8-1344

OK F Simed 1-28-93
 202 56-28-1 pm
 55-58-1 pm
 1-29-93

P 062 921 962



Receipt for Certified Mail

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

Sent to <i>L A Starkey</i>	
Street and No. <i>Seminole Kraft</i>	
P.O., State and ZIP Code <i>Jax, FL</i>	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date <i>1-3 LK</i> <i>1-3 RB</i> <i>1-3 SDT</i>	<i>1-29-93</i> <i>No. 3 Slaker</i>

PS Form 3800, June 1991

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt Fee will provide you the signature of the person delivered to and the date of delivery.

I also wish to receive the following services (for an extra fee):

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Mr. L. A. Stanley
General Manager
Seminole Kraft Corporation
9469 East Port Road
Jacksonville, FL 32229

4a. Article Number
P 062 922 025

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

5. Signature (Addressee)

6. Signature (Agent)
Smith

7. Date of Delivery

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

PS Form 3811, November 1990 *U.S. GPO: 1991-287-066

DOMESTIC RETURN RECEIPT

P 062 922 025



Receipt for Certified Mail

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

PS Form 3800, June 1991

Sent to Mr. L. A. Stanley, Seminole	
Street and No. Kraft Corp. 9469 East Port Road	
P.O., State and ZIP Code Jacksonville, FL 32229	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date Mailed: 1-25-93 Permit: AC 16-222359 PSD-FL-198	

P 062 921 944



Receipt for Certified Mail

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

Sent to <i>R.A. Stanley</i>	
Street and No. <i>Seminole Kraft</i>	
P.O., State and ZIP Code <i>JAX, FL</i>	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date <i>1-6-93</i> <i>AC 16-222359</i> <i>P5D-FL-198</i>	

PS Form 3800, June 1991

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. Show to whom, date and address of delivery.

2. Restricted Delivery.

3. Article Addressed to:
L.A. Stanley Corp.
Seminole Kraft Corp.
9469 E Port Rd
Jacksonville, FL 32229

4. Type of Service:	Article Number
<input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail	<input type="checkbox"/> Insured <input type="checkbox"/> COD <i>P062 921 944</i>

Always obtain signature of addressee or agent and **DATE DELIVERED.**

5. Signature - Addressee
X

6. Signature - Agent
X *[Signature]*

7. Date of Delivery

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

DOMESTIC RETURN RECEIPT

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt Fee will provide you the signature of the person delivered to and the date of delivery.

I also wish to receive the following services (for an extra fee):

1. Addressee's Address
2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mr. L. A. Stanley, General Mgr.
Seminole Kraft Corporation
9469 Eastport Road
Jacksonville, FL 32229

4a. Article Number

P 062 922 018

4b. Service Type

- | | |
|---|---|
| <input type="checkbox"/> Registered | <input type="checkbox"/> Insured |
| <input checked="" type="checkbox"/> Certified | <input type="checkbox"/> COD |
| <input type="checkbox"/> Express Mail | <input type="checkbox"/> Return Receipt for Merchandise |

7. Date of Delivery**5. Signature (Addressee)****6. Signature (Agent)****8. Addressee's Address (Only if requested and fee is paid)**

PS Form 3811, November 1990 * U.S. G.P.O. 1991-287-066

DOMESTIC RETURN RECEIPT

P 062 922 018



Receipt for Certified Mail

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

PS Form 3800, June 1991

Sent to Mr. L. A. Stanley, Seminole	
Street and No. Kraft 9460 Eastport Road	
P.O., State and ZIP Code Jacksonville, FL 32229	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date Mailed: 12-23-92 Permit: AC 16-222359 PSD-FL-198	

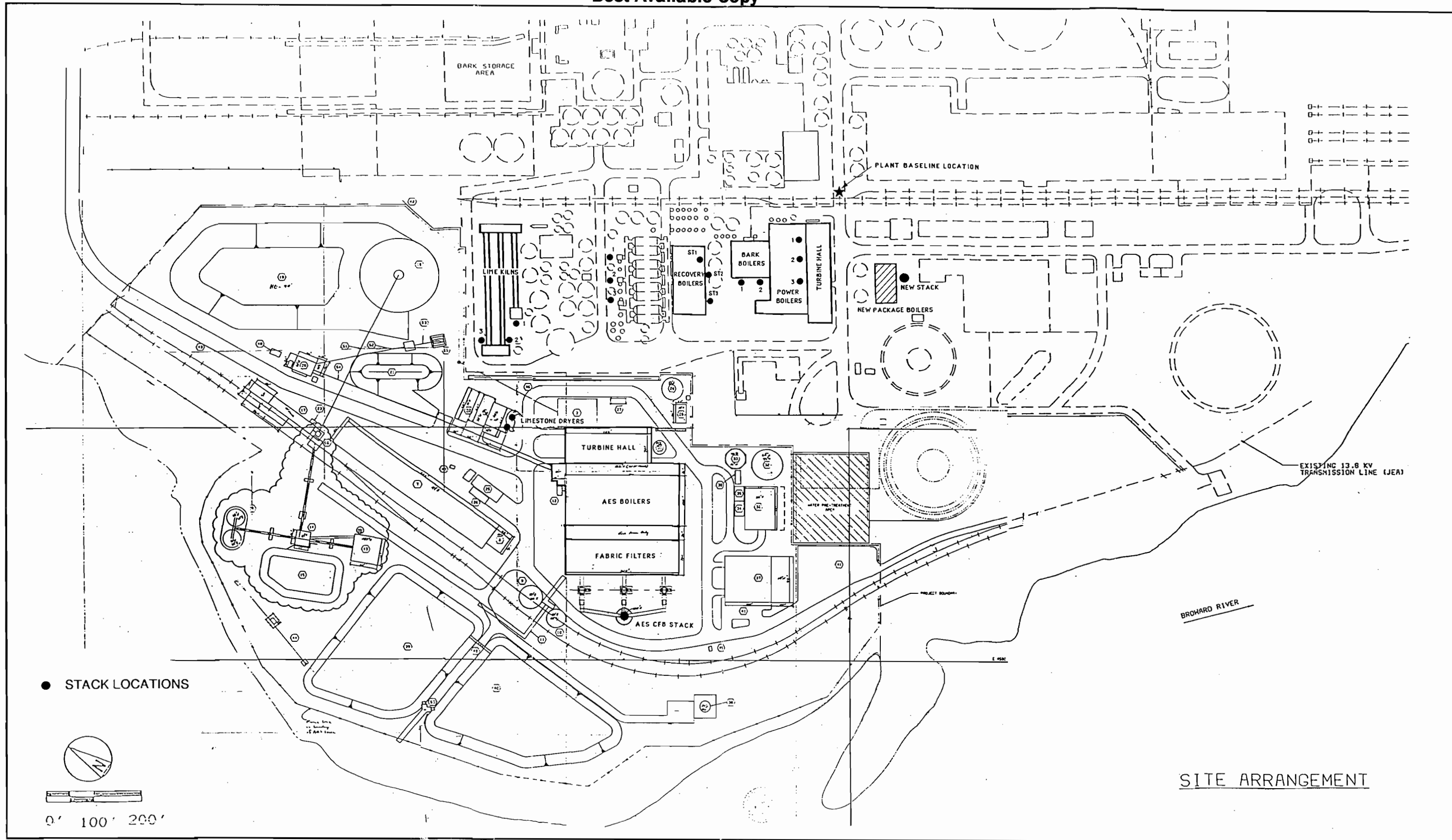


Figure 2-2 PLOT PLAN OF SEMINOLE KRAFT CORPORATION FACILITY

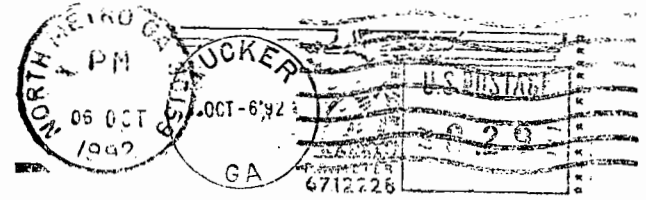




Stone Container Corporation

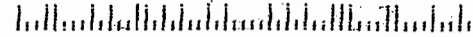
Containerboard and Paper Division

1979 Lakeside Parkway
Suite 300
Tucker, GA 30084



AD ~~Dennis Jaber~~

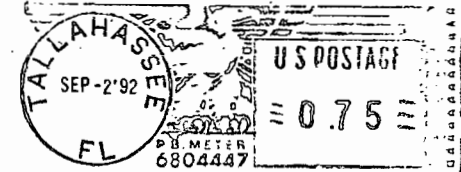
State of Florida
Dept. of Environmental Regulation
Twin Towers Ofc. Bldg.
2600 Blair Stone Rd
Tallahassee, FL 32399-2400



STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400
ADDRESS CORRECTION REQUESTED

Stone Container

~~Curt Barton~~
Seminole Kraft Corp
2150 Parklake Dr-Suite 400
Atlanta, GA 30345



STON150 303454005 1748 10/01/92
NOTIFY SENDER OF NEW ADDRESS
STONE CONTAINER CORP
1979 LAKESIDE PKY STE
TUCKER GA 30084-5847



MOVING ANNOUNCEMENT.....Effective July 27, 1992



Stone Container Corporation

Technology and Engineering

Mill Operations

Corrugated Container Division Regional Office

to

**1979 Lakeside Parkway - Suite 300
Tucker, Georgia 30084**

Telephone (404) 621-6700

Our individual phone and fax numbers will remain the same

rec'd 9-24-92
D 10:20
Ran



Seminole Kraft Corporation

Jacksonville Mill

9469 Eastport Road
P.O. Box 26998
Jacksonville, Florida 32218-0998

September 1, 1992

904 751-6400

Mr. C.H. Fancy, Chief
Bureau of Air Regulation
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Dear Mr. Fancy:

Attached are copies of the operating permits surrendered to Mr. Ernest Frey at your district office in Jacksonville, and recent and recent emissions test data for the Seminole Kraft Recovery Boilers, Smelt Tanks, Lime Kiln and Slaker. These units were permanently shut down on September 10 1992. Table I summarizes the emission type and quantity from each source.

We are requesting that these creditable emissions reductions (Table I and Table II) be credited to Seminole Kraft for a period of five years commencing September 10, 1992 and ending September 10, 1997. Preservation of these reductions are described in letters from yourself to L.A. Stanley (Seminole Kraft, General Manager) and from Jewell Harper (EPA Air Enforcement Branch Chief) to you (See attachment I and II). We would appreciate a written response from you acknowledging the allocation of these creditable emission reductions to Seminole Kraft.

Should you have any questions, please contact Mike Riddle (Technical Director, Seminole Kraft) at (904) 751-6400, ext. 252.

Sincerely,

L.A. Stanley
General Manager

RECEIVED

SEP 22 1992

Division of Air
Resources Management

ah
attachments

CC: Wayne Walker (RESO)
Ernest Frey (FDER, Jacksonville Office)
Mike Riddle
Joe Eskridge
Curt Barton
Terry Cole
Craig Hurd



9-24-92

03:18 pm

Spoke w/ Mike Riddle
and requested the data to
substantiate the data
in Tables I & II.

BR

9-24-92

Spoke w/ Buck Owen - he
said that the 3xPBs and
2xBBs were the only
sources evaluated for
conting. emissions in
the AES-Cedar Bay project.

BR

P.S.: ✓ the permitted but
not constructed RB/SOT
for conting. emissions.