

Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachmann, Secretary

John Shearer, Assistant Secretary

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION NOTICE OF PERMITS

Mr. L. A. Stanley
Seminole Kraft Corporation
9469 Eastport Road
Jacksonville, Florida 32218

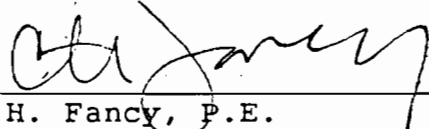
January 5, 1990

Enclosed are construction permits Nos. AC 16-168607, -168608, -168609 and PSD-FL-141 for Seminole Kraft Corporation to modify the recovery boiler project at their facility in Jacksonville, Duval County, Florida. These permits are issued pursuant to Section 403, Florida Statutes.

Any party to these permits has the right to seek judicial review of these permits 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 these permits are filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION


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

Copy furnished to:

- A. Kutyna, NE District
- S. Pace, BESD
- W. Aronson, EPA
- C. Shaver, NPS
- D. Buff, KBN
- J. Subramani, Oertel & Hoffman

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on 1-9-90.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to
§120.52(9), Florida Statutes, with
the designated Department Clerk,
receipt of which is hereby
acknowledged.

Kevin Ober
Clerk

1-9-90
Date

Final Determination

Seminole Kraft Corporation
Duval County
Jacksonville, Florida

Permit Numbers:

AC 16-168607, Kraft Recovery Boiler
AC 16-168608, Smelt Dissolving Tank
AC 16-168609, Multiple Effect Evaporators

PSD-FL-141

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

December 29, 1989

Final Determination

Seminole Kraft Corporation's application for construction of a new recovery boiler (RB), a smelt dissolving tank (SDT), and a new set of multiple effect evaporators (MEEs), at their existing facility in Jacksonville, Duval County, Florida, has been reviewed by DER's Bureau of Air Regulation (BAR).

Public Notice of the Department's Intent to Issue the permit was published in the Florida Times Union on November 29, 1989.

Copies of the Preliminary Determination have been available for public inspection at the Department's Northeast District office in Jacksonville, Duval County's Bio-Environmental Services Division's (BESD) office in Jacksonville, and the Department's Bureau of Air Regulation in Tallahassee.

Comments in response to the Department's Preliminary Determination were received from Seminole Kraft Corporation (SKC), BESD, EPA, BAR, and Department of Interior. These comments are not rewritten here, instead they are attached. The responses below are in the same order as the comments.

I. Responses to Seminole Kraft Corp. comments (attachment No. 10) received on December 1, 1989:

A. RB Permit, AC 16-168607

1. The NOx emission limit will remain as stated in the permit. Non-compliance issues will be addressed if and when necessary. BAR is optimistic about the technical expertise of a prudently chosen RB manufacturer in achieving the proposed NOx emission level.
2. The heat input quantity in S.C. No. 3 will be amended to reflect the quantity in the application.
3. The second S.C. No. 3 will be deleted from the permit.
4. A microprocessor will be allowed for CEM data collection with a hard copy recorded using a computer printout, only if the unit is capable of maintaining the integrity of CEM data. BAR and BESD will need such assurance along with the manufacturer's literature and guarantee, at the time the selection is being considered.
5. The oxygen CEM's span setting requirements in S.C. No. 7 will be changed to 20.8% for monitoring convenience.

6. The BACT NOx emission factor will be corrected using the appropriate process input.
- B. SDT Permit, AC 16-168608
1. The visible emission limitation in S.C. No. 3 will be clarified as requested, to reflect that moisture interference will be taken into consideration when determining compliance.
- C. MEE Permit, AC 16-168609
1. The temperature and residence time requirements for the lime kiln(s) are in accordance with 40 CFR 60 Subpart BB.
- D. For the RB, SDT and MEE Permits, AC 16-168607, -608, -609
1. A test results submittal period of 45 days will be allowed after completion of compliance tests, in S.C. No. 11 (RB), S.C. No. 10 (SDT), and S.C. No. 11 (MEE).
 2. Existing equipment to be shut down will be "made incapable of operation" instead of being "dismantled", in S.C. No. 12 (RB), S.C. No. 11 (SDT), and S.C. No. 12 (MEE).
 3. The requirement for DER approval for changes in operation aspects, refers to "Modification" as defined in F.A.C. Rule 17-2.100. A more specific reference for the definition is not included since rule renumbering may cause confusion.
 4. The expiration date of the permits will be changed to April 1, 1993, to provide the applicant adequate time to file an application for an operation permit. It should be noted that the the sources are required to be in compliance by November 12, 1992, although the proof of compliance must be submitted no later than 45 days after this date. This provision is consistent with the other permits issued by BAR for the recent TRS control projects.
 5. The requirement for filing for operation permits within 45 days of test completion or a minimum of 90 days prior to the construction permit expiration date, whichever occurs first, is compatible with the change mentioned in I.D.4 above.

II. Responses to BESD comments (attachment No. 11) received December 6, 1989:

A. Recovery Boiler Permit, AC 16-168607

1. "Or" will be deleted from Specific Condition (S.C.) No. 2, to clarify that both short term (lbs/hr) and the long term (lbs/day) process rate limitations, are applicable.
2. The heat input quantity in S.C. No. 3 will be amended to reflect the quantity in the application.
3. The word "basis" in S.C. No. 4 will be replaced by "concentration" for PM, TRS, and NOx, for which those are requirements by rule and BACT, respectively.
4. Test methods for lead, beryllium, VOC, CO and sulfuric acid mist will be added to the initial testing requirements in S.C. No. 6 to determine the validity of emissions documented for inventory and PSD purposes.
5. A statement will be added to S.C. No. 3 to clarify the record keeping requirement for the quantity of fuel oil fired in the RB.
6. Specific reference to the requirements in 40 CFR 60.7 (notification and records) and 60.8 (performance tests) will be added to S.C. No. 8. This reference will also be added to S.C. No. 7 of both the SDT and the MEE permits.

B. Smelt Dissolving Tank Permit, AC 16-168608

1. The visible emission limitations for SDTs in Chapter 17-2.650 of the Florida Administrative Code (F.A.C.), of 10% opacity, will be incorporated into S.C. No. 3.
2. The word "basis" in S.C.s No. 3 will be replaced by "concentration", for PM and TRS as discussed in II.A.3 above.

C. Multiple Effect Evaporator Permit, AC 16-168609

1. The word "or" will be deleted from S.C. No. 2, as discussed in II.A.1 above.

BESD's comments received on December 22, 1989, regarding SKC's comments, are included as attachment No. 13.

III. Responses to EPA Comments:

A. RB Permit, AC 16-168607

1. The second S.C. No. 3 will be deleted from the permit.
2. The fuel oil usage documented in S.C. No. 3 will be made a limitation to make it federally enforceable.
3. The heat input quantity in S.C. No. 3 will be amended to reflect the quantity in the application.

IV. Comments from BAR are as follows:

A. RB Permit, AC 16-168607

1. The electrical generating capacity associated with the recovery boiler will be mentioned in the description of the project.
2. The UTM coordinates will be corrected.
3. The annual emissions listed in S.C. Nos. 4 and 5 will be rounded off.
4. BAR will process the approvals required in S.C. Nos. 6 and 10. A requirement for annual testing for SO₂ will be added to S.C. No. 6.
5. The general reporting requirements in S.C. No. 8 will be updated.

B. SDT Permit, AC 16-168608

1. The annual emissions listed in S.C. Nos. 3 and 4 will be rounded off.
2. The VE compliance issues referred to in S.C. No. 3 will be coordinated by BESD.
3. BAR will process the approvals required in S.C. Nos. 5 and 9. An initial and annual moisture content determination requirement will be added to S.C. No. 5.
4. The general reporting requirements in S.C. No. 7 will be updated.

- C. MEE Permit, AC 16-168609
1. The word "changed" will be replaced by the word "amended", in S.C. No. 3.
 2. The general reporting requirements in S.C. No. 7 will be updated.
 3. S.C. No. 8 will specify that BAR may require operating temperature determination for the lime kiln(s).
 4. BAR will process the approval required in S.C. No. 10.
- V. Comments from Department of Interior are attached (Attachment No. 14).

The final action of the Department is to issue the BACT and permits as proposed in the Preliminary Determination with the changes mentioned above, and listed below:

- A. AC 16-168607 (RB) amend S.C. Nos. 2, 3, 4, 5, 6, 7, 8, 10, 11 and 12.
- B. AC 16-168608 (SDT) amend S.C. Nos. 3, 4, 5, 7, 9, 10 and 11.
- C. AC 16-168609 (MEE) amend S.C. Nos. 2, 3, 7, 8, 10, 11 and 12.



Seminole Kraft Corporation

Jacksonville Mill

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

December 4, 1989

RECEIVED

904 751-6400

DEC 06 1989

DER-BAQ:m

Mr. Clair H. Fancy, P.E.
Fl. Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32399

Dear Mr. Fancy:

Enclosed is the legal notice of publication for the notice of intent to issue the recovery boiler, multiple effect evaporator, and smelt dissolving tank permit No.2 AC16-168607, AC16-168609, AC16-168608 and PSD-FL-141.

If you have any questions, please contact me.

Sincerely,

L.A. Stanley
General Manager

ah

attachment

cc: P. Rowel
A. Kutyna, DE Dist.
S. Ford, DE Dist.
J. Bronson, EPA
C. Shaw, NDS

BEST AVAILABLE COPY

FLORIDA PUBLISHING COMPANY
Publisher
JACKSONVILLE, DUVAL COUNTY, FLORIDA

STATE OF FLORIDA }
COUNTY OF DUVAL }

Before the undersigned authority personally appeared Victoria Evans

_____ who on oath says that he is

Retail Advertising Assistant

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

in the _____ Court,

was published in THE FLORIDA TIMES-UNION in the issues of _____

Nov. 29, 1989

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 29th day of

Nov. A.D. 1989

Notary Public,
State of Florida at Large.

My Commission Expires _____

Victoria Evans

State of Florida
Department of Environmental Regulation
Notice of Intent to Issue

The Department of Environmental Regulation hereby gives notice of its intent to issue construction permits to Seminole Kraft Corporation (SKC), 9429 Eastport Road, Jacksonville, Florida 32215, to replace the three existing kraft recovery boilers (RBs), Nos. 1, 2 and 3; three existing smelt dissolving tanks (SDTs), Nos. 1, 2, and 3; and three existing sets of multiple effects evaporators (MEEs), Nos. 1, 2, and 3; with a new RB, a new SDT, and a new set of MEEs. SKC is proposing these changes to comply with the TRS (total reduced sulfur compounds) Compliance Plan previously submitted. The project will be located at the existing Seminole Kraft facility in Jacksonville, Duval County, Florida.

There will be a net increase in the emissions of nitrogen oxides (NOx) from the recovery boiler for which a Best Available Control Technology (BACT) determination was required. The Class I NOx increment consumed is 0.016 ug/m3, of the allowable 2.5 ug/m3 (representing about 0.6% annual basis). There is no Class II NOx increment consumed by this project. The maximum combined pollutant concentrations from the proposed project and other sources in the area will be less than the National Ambient Air Quality Standards (NAAQS). The NAAQS are levels set by the EPA which identify the ambient concentration necessary to protect human health and welfare with an adequate margin of safety. 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 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 filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination/hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action;
- (g) A statement of the relief sought by petitioner, stating precisely the action 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
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Department of Environmental Regulation
Northeast District Office
3426 Bills Road
Jacksonville, Florida 32207
Division of Bio-Environmental Services
421 Church Street, Room 412
Jacksonville, Florida 32204

Any person may send written comments on the proposed action to Mr. Bill Thomas at the Department's Tallahassee address. All comments mailed within 30 days of the publication of this notice will be considered in the Department's final determination. Furthermore, a public hearing can be requested by any person. Such requests must be submitted within 30 days of this notice.

Best Available Control Technology (BACT) Determination
Seminole Kraft Corporation
Duval County

The applicant proposes to install a kraft recovery boiler at their facility located in Jacksonville, Florida. The recovery boiler, rated at 1,125 MMBtu/hr, will replace three old recovery boilers. Also included in the project is the installation of a new smelt dissolving tank and a new set of evaporators which will replace three old smelt dissolving tanks and three old sets of evaporators, respectively.

The applicant has indicated the maximum net total annual tonnage of regulated air pollutants emitted from the project based on 8,760 hours per year operation to be as follows:

| <u>Pollutant</u> | <u>Max. Net Increase in Emissions (TPY)</u> | <u>PSD Significant Emission Rate (TPY)</u> |
|--------------------------------|---|--|
| TSP | -140.7 | 25 |
| PM ₁₀ | -138.6 | 15 |
| SO ₂ | 6.4 | 40 |
| NO _x | 1296.4 | 40 |
| CO | -160.0 | 100 |
| VOC | -92.3 | 40 |
| TRS | -53.3 | 10 |
| Pb | -0.16 | 0.6 |
| Be | -0.012 | 0.004 |
| H ₂ SO ₄ | -5.8 | 7 |

Rule 17-2.500(2)(f)(3) of the Florida Administrative Code (F.A.C.) requires a BACT review for all regulated pollutants emitted in an amount equal to or greater than the significant emission rates listed in the previous table. The NO_x emissions from the smelt dissolving tank and the multiple effect evaporators are negligible and will not be considered as part of the BACT analysis.

BACT Determination Requested by the Applicant

| <u>Pollutant</u> | <u>Determination</u> |
|------------------|----------------------------------|
| NO _x | 180 ppm (corrected to 8% oxygen) |

Date of Receipt of a BACT Application

September 11, 1989

Review Group Members

This determination was based upon comments received from the applicant and the Permitting and Standards Section.

BACT Determination Procedure

In accordance with Florida Administrative Code Chapter 17-2, Air Pollution, 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 methods, systems, and techniques. In addition, the regulations state 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.

BACT Analysis

A review of recent BACT determinations for nitrogen oxides from kraft recovery boilers indicates that the emission rate proposed by the applicant does not represent BACT. The rationale for establishing BACT at a lower than proposed level is presented as follows:

The applicant has indicated that an emission rate of 180 ppm corrected to 8% oxygen is representative of BACT taking into consideration guarantees common to all potential manufacturers, the black liquor fuel analysis, and performance deterioration based on a 24-hour average.

A review of the BACT/LAER Clearinghouse indicates a wide range of NOx limitations. Although several of the most recent BACT determinations range from 50-80 ppm corrected to 8% oxygen, none of the facilities listed utilize NOx reduction systems operating downstream from a kraft recovery boiler. However, in keeping with the "top down" BACT analysis, "add on" control equipment will be evaluated as part of the analysis.

The two types of control that are typically utilized for NOx reduction are selective catalytic reduction (SCR) and Thermal De NOx. Each of these technologies utilizes ammonia injection as the means to react with and thereby reduce the concentrations of NOx in the gas stream. Although these technologies have not been utilized for this type of application the economics of using such equipment should be addressed.

The applicant has indicated that using Thermal DeNOx as a control device for NOx results in a cost of \$2,000 per ton of NOx reduced. Although this cost is not excessive compared to recent BACT determinations in which NOx removal was justified at costs up to approximately \$4,500 per ton, the use of Thermal DeNOx as a control measure has not been demonstrated on kraft recovery boilers and hence has not been seriously considered as BACT for recent determinations. Similarly SCR has not been used in kraft recovery boiler applications and should not be considered as BACT for these facilities.

Although "add on" NOx controls have not been utilized for kraft recovery boilers, a survey of the most recent BACT determinations indicates that kraft recovery boiler manufacturers are capable of limiting NOx emissions to surprisingly low levels (generally 53 to 75 ppm @ 8% oxygen) by equipment design.

Discussions with the BACT coordinators from other states which have pulp and paper industry indicate that all of the known manufacturers of kraft recovery boilers have proposed or agreed to meet NOx emission limitations which fall within the range discussed above. Although many of these facilities were just recently permitted and have yet to be constructed and tested, there is sufficient data available to suggest that these limitations can indeed be met.

In a technical study completed by the National Council of the Paper Industry for Air and Stream Improvement, Inc. (NCASI), several large kraft recovery furnaces (boilers) were tested for NOx emissions. The publication entitled "A Study of Nitrogen Oxides Emissions from Large Kraft Recovery Furnaces" provides evidence that NOx emissions can be held to levels which are now being proposed by kraft recovery boiler manufacturers.

The NCASI report focused on the NOx emissions from four large kraft recovery boilers, with three of the units being located in the southeastern United States. The size of the units tested ranged from firing rates of 3.18 - 4.06 million pounds of black liquor solids (BLS) per day. This is comparable to the proposed kraft recovery boiler which has a firing of 4.1 million pounds of BLS per day.

Based on the NOx emission studies completed, the NCASI report concluded the following:

- 1) NOx emissions from large kraft recovery boilers were not size dependent.
- 2) NOx emissions ranged from 0.06 to 0.11 lbs/million Btu heat input.

Based on the applicant's maximum BLS input of 4.1×10^6 lb/day (170,833.3 lb/hr) a comparison of the proposed NOx emission limit can be made with the NCASI test results.

The applicant has estimated the maximum hourly NOx emission to be 369.3 pounds. Taking this into account with the BLS heating value of 6585 Btu per pound, the calculated emission rate on a heat input basis is approximately 0.33 lbs per million Btu. This emission level ranges from approximately 3 to 5.5 times greater than that observed by the NCASI study.

Environmental Impact Analysis

A review of the NOx impacts associated with the proposed kraft recovery boiler installation indicates that there will be a reduction in the maximum annual impact. This reduction in the NOx impact will be attributed to the replacement of the three old recovery boilers which are now exhibiting higher impacts than what will be expected for the new unit.

BACT Determination by DER:

Based on the information presented in this analysis, the Department has determined that BACT should be established as follows:

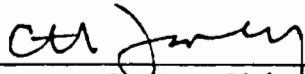
| <u>Pollutant</u> | <u>Emission Limit</u> |
|------------------|--|
| NOx | 75 ppm by volume, corrected to 8% oxygen |

This NOx emission limitation is representative of the levels that are being proposed in recent applications as BACT for kraft recovery boilers supplied by all known manufacturers. In addition, this level is supported by the NCASI report which showed NOx emissions ranging from 37 to 60 ppm, corrected to 8% oxygen, for all of the facilities tested over a three hour period.

Details of the Analysis May be Obtained by Contacting:

Barry Andrews, P.E., BACT Coordinator
Department of Environmental Regulation
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

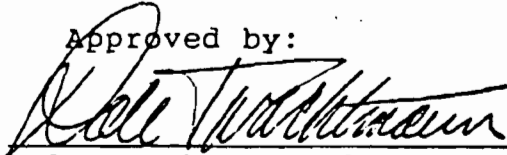
Recommended by:



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

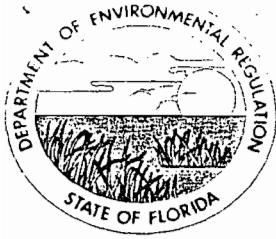
January 3, 1990
Date

Approved by:



Dale Twachtmann, Secretary
Dept. of Environmental Regulation

5 Jan 1990
Date



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

PERMITTEE:

Seminole Kraft Corporation
9469 Eastport Road
Jacksonville, FL 32218

Permit Number: AC 16-168607
PSD-FL-141

Expiration Date: April 1, 1993

County: Duval

Latitude/Longitude: 30°25'17"N
81°36'19"W

Project: Kraft Recovery Boiler

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 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 construction of a low odor kraft recovery boiler with a capacity of firing 170,833 lbs/hr dry black liquor solids, and approximately 750,000 gals/yr of No. 6 fuel oil during start-up, shutdown or malfunction. Steam from the recovery boiler will be used in the plant and to generate 43 MW of electricity. The particulate emissions will be controlled by a dry bottom ESP. The project will be located at Seminole Kraft Corporation's (SKC) existing facility in Jacksonville, Duval County, Florida.

The UTM coordinates are Zone 17, 441.9 km East and 3365.5 km North.

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. SKC's application received August 11, 1989.
2. EPA's letter received August 31, 1989.
3. DER's incompleteness letter dated September 8, 1989.
4. KBN's letter received September 11, 1989.
5. SKC's response received September 12, 1989.
6. SKC's letter received September 14, 1989.
7. KBN's letter received October 11, 1989.
8. EPA's letter received November 9, 1989.
9. DER's Preliminary Determination dated November 22, 1989.
10. SKC's comments received December 1, 1989.
11. BESD's comments received December 6, 1989.
12. EPA's comments received December 11, 1989.
13. BESD's comments received December 22, 1989.
14. Dept. of Interior's comments received December 26, 1989.
15. DER's Final Determination dated December 29, 1989.

PERMITTEE:
Seminole Kraft Corporation

Permit Number: AC 16-168607
PSD-FL-141
Expiration Date: April 1, 1993

GENERAL CONDITIONS:

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

PERMITTEE:
Seminole Kraft Corporation

Permit Number: AC 16-168607
PSD-FL-141
Expiration Date: April 1, 1993

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.

PERMITTEE:
Seminole Kraft Corporation

Permit Number: AC 16-168607
PSD-FL-141
Expiration Date: April 1, 1993

GENERAL CONDITIONS:

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 proscribed 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 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

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

13. This permit also constitutes:

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

14. The permittee shall comply with the following:

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

PERMITTEE:
Seminole Kraft Corporation

Permit Number: AC 16-168607
PSD-FL-141
Expiration Date: April 1, 1993

GENERAL CONDITIONS:

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

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 Kraft Recovery Boiler (RB) may operate continuously, i.e., 8760 hours/year.
2. The maximum process rate shall neither exceed 170,833 lbs/hr dry black liquor solids (BLS), nor 4,100,000 lb/day dry BLS. This reflects a 1987 TPD ADUP (tons per day of air dried unbleached pulp) production rate for the mill.
3. The maximum heat input to the RB shall not exceed 1,125 MMBtu/hr. The No. 6 fuel oil utilization rate will not exceed 750,000 gals/year (used during start-up, shutdown, and malfunction). The fuel oil consumption shall be recorded on a daily basis.

PERMITTEE:
Seminole Kraft Corporation

Permit Number: AC 16-168607
PSD-FL-141
Expiration Date: April 1, 1993

SPECIFIC CONDITIONS:

4. Particulate emissions shall be controlled by a dry bottom electrostatic precipitator. The NO_x emissions are based on the BACT determination. The maximum pollutant emissions from the RB shall not exceed:

| Pollutant | Basis | Emission Limit | |
|-----------------|-------------------------------------|----------------|------|
| | | lb/hr | TPY |
| PM (TSP) | * 0.044 gr/dscf @ 8% O ₂ | 107.0 | 469 |
| SO ₂ | 180 ppmvd @ 8% O ₂ (max) | 514.0 | - |
| | 120 ppmvd @ 8% O ₂ (avg) | 339.3 | 1486 |
| NO _x | * 75 ppmvd @ 8% O ₂ | 153.0 | 670 |
| TRS | * 5 ppmvd @ 8% O ₂ | 7.5 | 33 |

*Note: The flue gas concentrations for PM, TRS, and NO_x are emission limitations by rule and BACT, respectively, and shall be complied with. The TRS emissions are based on a 12-hr average.

Visible emissions (VE) shall be less than 35% opacity.

5. The following are tabulated for PSD and inventory purposes:

| Pollutant | Basis | Emission Limit | |
|-------------------------------------|---------------------------------|----------------|-------|
| | | lb/hr | TPY |
| PM ₁₀ | 74.8% of PM | 80.8 | 351 |
| CO | 400 ppmvd @ 8% O ₂ | 494.8 | 2167 |
| VOC | 80 ppmvd @ 8% O ₂ | 56.6 | 248 |
| Lead | 3900 lb / 10 ¹² dscf | 0.047 | 0.21 |
| Beryllium | 300 lb / 10 ¹² dscf | 0.0036 | 0.016 |
| H ₂ SO ₄ Mist | 0.81 ppm | 3.0 | 13.3 |

6. Initial (I) and annual (A) compliance tests shall be conducted in accordance with the July 1, 1988 version of 40 CFR 60 and 61, as follows:

- a) EPA Method 1, for sample and velocity traverses (I,A)
- b) EPA Method 2, for determining stack gas flow rate (I,A)
- c) EPA Method 3, for gas analyses (I,A)
- d) EPA Method 4, for stack gas moisture content (I,A)
- e) EPA Method 5/17, for PM (I,A)
- f) EPA Method 6/8, for SO₂ (I,A)
- g) EPA Method 8, for H₂SO₄ mist (I)
- h) EPA Method 7/7A, for NO_x (I,A)
- i) EPA Method 9, for VE (I,A)
- j) EPA Method 10, for CO (I)
- k) EPA Method 12, for lead (I)
- l) EPA Method 16/16A, for TRS (I,A)
- m) EPA Method 25 or 25A, for VOCs (I)
- n) EPA Method 104, for beryllium (I)
- o) ASTM D 396-76, for sulfur content of No. 6 fuel oil (I)

PERMITTEE:
Seminole Kraft Corporation

Permit Number: AC 16-168607
PSD-FL-141
Expiration Date: April 1, 1993

SPECIFIC CONDITIONS:

Compliance test methods, other than those mentioned above, may be used only after prior written approval from DER's Bureau of Air Regulation (BAR).

7. The permittee shall install, calibrate, maintain, and operate the following continuous monitoring systems in accordance with the July 1, 1988 version of 40 CFR 60 Subpart BB:

- a) Opacity monitor and recorder, with the span set at 70% opacity
- b) TRS monitor and recorder, with the span set at 30 ppm TRS (monitoring on dry basis)
- c) Oxygen monitor and recorder, with the span set at 20.8% O₂ (monitoring on dry basis)

8. The RB is subject to the provisions of F.A.C. Rules 17-4.130 - Plant Operation Problems; 17-2.240 - Circumvention; 17-2.250 - Excess Emissions; 17-2.700(7) - Reports; 17-2.710(3) - Continuous Monitoring; 17-2.710(4) - Quarterly Reporting Requirements; 17-2.971 - Compliance Schedules for Continuous Monitoring Requirements; and all other applicable provisions of F.A.C. Chapters 17-2 and 17-4; the July 1, 1988 version of 40 CFR 60 Subpart BB - NSPS for Kraft Pulp Mills; 40 CFR 60.7 - Notification and Records; and 40 CFR 60.8 - Performance Tests.

9. Objectionable odors shall not be allowed off plant property, in accordance with F.A.C. Rule 17-2.620(2).

10. Any change in the method of operation, raw materials and chemicals processed, equipment, or operating hours, or any other changes pursuant to F.A.C. Rule 17-2.100, defining modification, shall be submitted for approval to BAR.

11. The Duval County's Bio-Environmental Services Division (BESD) office shall be notified, in writing, a minimum of 15 days prior to source testing. Written reports of the test results shall be submitted to the BESD office within 45 days of test completion.

12. The operation permits for the three existing recovery boiler Nos. 1, 2, and 3 (AO 16-71206, -07, and -08), which shall be permanently shut down and made incapable of operation, shall be turned in to the BESD office upon receipt of the operation permit for the new recovery boiler. The method by which the existing units will be made incapable of operation will be approved by BAR and BESD.

PERMITTEE:
Seminole Kraft Corporation

Permit Number: AC 16-168607
PSD-FL-141
Expiration Date: April 1, 1993

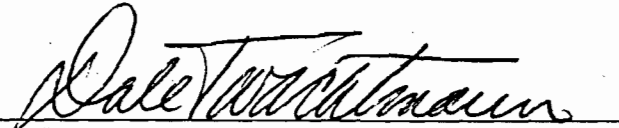
SPECIFIC CONDITIONS:

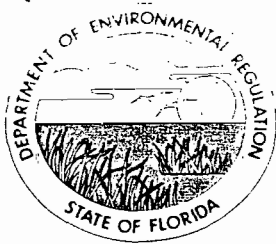
13. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).

14. An application for an operation permit must be submitted to the BESD office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. 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. Rule 17-4.220).

Issued this 5 day
of Jan, 1990

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION


Dale Twachtmann, Secretary



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Bob Martinez, Governor

Dale Twachmann, Secretary

John Shearer, Assistant Secretary

PERMITTEE:

Seminole Kraft Corporation
9469 Eastport Road
Jacksonville, FL 32218

Permit Number: AC 16-168608
PSD-FL-141
Expiration Date: April 1, 1993
County: Duval
Latitude/Longitude: 30°25'18"N
81°36'18"W
Project: Smelt Dissolving Tank

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 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 construction of a smelt dissolving tank associated with the recovery boiler which has a capacity of 170,833 lbs/hr dry black liquor solids (BLS). TRS and particulate emissions will be controlled by a venturi scrubber. The project will be located at Seminole Kraft Corporation's (SKC) existing facility in Jacksonville, Duval County, Florida.

The UTM coordinates are Zone 17, 441.9 km East and 3365.5 km North.

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. SKC's application received August 11, 1989.
2. EPA's letter received August 31, 1989.
3. DER's incompleteness letter dated September 8, 1989.
4. KBN's letter received September 11, 1989.
5. SKC's response received September 12, 1989.
6. SKC's letter received September 14, 1989.
7. KBN's letter received October 11, 1989.
8. EPA's letter received November 9, 1989.
9. DER's Preliminary Determination dated November 22, 1989.
10. SKC's comments received December 1, 1989.
11. BESD's comments received December 6, 1989.
12. EPA's comments received December 11, 1989.
13. BESD's comments received December 22, 1989.
14. Dept. of Interior's comments received December 26, 1989.
15. DER's Final Determination dated December 29, 1989.

PERMITTEE:
Seminole Kraft Corporation

Permit Number: AC 16-168608
PSD-FL-141
Expiration Date: April 1, 1993

GENERAL CONDITIONS:

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

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

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

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

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

PERMITTEE:
Seminole Kraft Corporation

Permit Number: AC 16-168608
PSD-FL-141
Expiration Date: April 1, 1993

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.

PERMITTEE:
Seminole Kraft Corporation

Permit Number: AC 16-168608
PSD-FL-141
Expiration Date: April 1, 1993

GENERAL CONDITIONS:

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 proscribed 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 17-4.120 and 17-30.300, 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 Prevention of Significant Deterioration (PSD)
- (x) Compliance with New Source Performance Standards (NSPS)

14. The permittee shall comply with the following:

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

PERMITTEE:
Seminole Kraft Corporation

Permit Number: AC 16-168608
PSD-FL-141
Expiration Date: April 1, 1993

GENERAL CONDITIONS:

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

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 smelt dissolving tank (SDT) may operate continuously, i.e., 8760 hours/year.
2. The maximum smelt processing rate shall not exceed the rate corresponding to 170,833 lbs/hr dry black liquor solids (BLS) for the recovery boiler.

PERMITTEE:
Seminole Kraft Corporation

Permit Number: AC 16-168608
PSD-FL-141
Expiration Date: April 1, 1993

SPECIFIC CONDITIONS:

3. The PM and TRS emissions shall be controlled by a venturi scrubber. The maximum emissions from the SDT shall not exceed:

| Pollutant | Emission Limits | | |
|-----------|------------------|-------|-----|
| | Concentration | lb/hr | TPY |
| PM (TSP) | 0.2 lb/ton BLS | 17.1 | 75 |
| TRS | 0.032 lb/ton BLS | 2.73 | 12 |

Visible Emissions shall be less than 10% opacity. If the Department observes visible emissions in excess of 10% opacity, it shall be considered good reason to believe that the applicable mass emission standard is in danger of being violated. The permittee shall be required to run a special compliance test in accordance with F.A.C Rule 17-2.700(2)(b). Such test shall be conducted within 14 days after Duval County's Bio-Environmental Services Division (BESD) has notified the permittee of the applicability of this permit condition.

4. The following are tabulated for PSD and inventory purposes:

| Pollutant | Basis | Emission Limit | |
|------------------|------------------------------------|----------------|-----|
| | | lb/hr | TPY |
| PM ₁₀ | 89.5% of PM | 15.3 | 67 |
| SO ₂ | 0.2 lb/ton ADUP and 80% removal | 2.28 | 10 |

5. Initial (I) and annual (A) compliance tests shall be conducted in accordance with the July 1, 1988 version of 40 CFR 60, Appendix A, as follows:

- a) EPA Method 1, for sample and velocity traverses (I,A)
- b) EPA Method 2, for velocity and volumetric flow rate (I,A)
- c) EPA Method 3, for gas analyzers (I,A)
- d) EPA Method 4, for stack gas moisture content (I,A)
- e) EPA Method 5, for PM (I,A)
- f) EPA Method 6/8, for SO₂ (I)
- g) EPA Method 9, for VE (I,A)
- h) EPA Method 16/16A, for TRS (I,A)

Compliance test methods, other than those mentioned above, may be used only after prior written approval from DER's Bureau of Air Regulation (BAR).

PERMITTEE:
Seminole Kraft Corporation

Permit Number: AC 16-168608
PSD-FL-141
Expiration Date: April 1, 1993

SPECIFIC CONDITIONS:

6. The permittee shall install, calibrate, maintain, and operate the following continuous monitoring systems in accordance with the July 1, 1988 version of 40 CFR 60 Subpart BB:

- a) measurement of the pressure loss of the gas stream through the venturi scrubber, accurate to within 2" water gauge pressure
- b) measurement of the scrubbing liquid supply pressure to the scrubber, accurate to within 15% of the design scrubber liquid pressure

7. The SDT is subject to the provisions of F.A.C. Rules 17-4.130 - Plant Operation Problems; 17-2.240 - Circumvention; 17-2.250 - Excess Emissions; 17-2.700(7) - Reports; 17-2.710(3) - Continuous Monitoring; 17-2.710(4) - Quarterly Reporting Requirements; 17-2.971 - Compliance Schedules for Continuous Monitoring Requirements; and all other applicable provisions of F.A.C. Chapters 17-2 and 17-4; the July 1, 1988 version of 40 CFR 60 Subpart BB - NSPS for Kraft Pulp Mills; 40 CFR 60.7 - Notification and Records; and 40 CFR 60.8 - Performance Tests.

8. Objectionable odors shall not be allowed of plant property, in accordance with F.A.C. Rule 17-2.620(2).

9. Any change in the method of operation, raw materials and chemicals processed, equipment, or operating hours pursuant to F.A.C. Rule 17-2.100, defining modification, shall be submitted for approval to BAR.

10. The Duval County's Bio-Environmental Services Division (BESD) office shall be notified, in writing, a minimum of 15 days prior to source testing pursuant to F.A.C. Rule 17-2.700(2)(a)5. Written reports of the test results shall be submitted to the BESD office within 45 days of test completion.

11. The operation permits for the three existing smelt dissolving tank Nos. 1, 2, and 3 (AO 16-71209, -10, -11), which shall be permanently shut down and made incapable of operation, shall be turned in to the BESD office upon receipt of the operation permit for the new smelt dissolving tank. The method by which the existing units will be made incapable of operation will be approved by BAR and BESD.

12. 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).

PERMITTEE:
Seminole Kraft Corporation

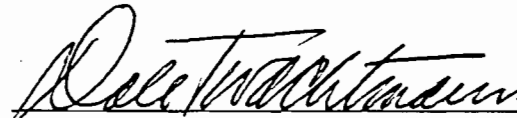
Permit Number: AC 16-168608
PSD-FL-141
Expiration Date: April 1, 1993

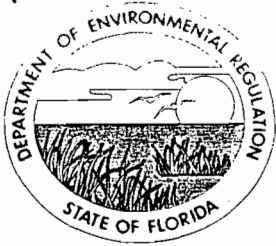
SPECIFIC CONDITIONS:

13. An application for an operation permit must be submitted to the BESD office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. 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. Rule 17-4.220).

Issued this 5 day
of Jan, 1990

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION


Dale Twachtmann, Secretary



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

PERMITTEE:

Seminole Kraft Corporation
9469 Eastport Road
Jacksonville, FL 32218

Permit Number: AC 16-168609
PSD-FL-141

Expiration Date: April 1, 1993

County: Duval

Latitude/Longitude: 30°25'15"N
81°36'00"W

Project: Multiple Effect Evaporators

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 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 construction of a set of multiple effect evaporators (MEEs) with a capacity to process 184,500 lbs/hr dry black liquor solids (BLS), evaporating weak black liquor to about 70% BLS. The MEE set will consist of six effects of the falling film type. TRS gases will be transported to the No. 2 or No. 3 lime kiln for incineration. The project will be located at Seminole Kraft Corporation's (SKC) existing facility in Jacksonville, Duval County, Florida.

The UTM coordinates are Zone 17, 441.9 km East and 3365.5 km North.

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. SKC's application received August 11, 1989.
2. EPA's letter received August 31, 1989.
3. DER's incompleteness letter dated September 8, 1989.
4. KBN's letter received September 11, 1989.
5. SKC's response received September 12, 1989.
6. SKC's letter received September 14, 1989.
7. KBN's letter received October 11, 1989.
8. EPA's letter received November 9, 1989.
9. DER's Preliminary Determination dated November 22, 1989.
10. SKC's comments received December 1, 1989.
11. BESD's comments received December 6, 1989.
12. EPA's comments received December 11, 1989.
13. BESD's comments received December 22, 1989.
14. Dept. of Interior's comments received December 26, 1989.
15. DER's Final Determination dated December 29, 1989.

PERMITTEE:

Seminole Kraft Corporation

Permit Number: AC 16-168609
PSD-FL-141

Expiration Date: April 1, 1993

GENERAL CONDITIONS:

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

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

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

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

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

PERMITTEE:

Seminole Kraft Corporation

Permit Number: AC 16-168609
PSD-FL-141

Expiration Date: April 1, 1993

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.

PERMITTEE:

Seminole Kraft Corporation

Permit Number: AC 16-168609

PSD-FL-141

Expiration Date: April 1, 1993

GENERAL CONDITIONS:

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 proscribed 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 17-4.120 and 17-30.300, 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 Prevention of Significant Deterioration (PSD)
- (x) Compliance with New Source Performance Standards (NSPS)

14. The permittee shall comply with the following:

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

PERMITTEE:

Seminole Kraft Corporation

Permit Number: AC 16-168609

PSD-FL-141

Expiration Date: April 1, 1993

GENERAL CONDITIONS:

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

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 multiple effect evaporators (MEEs) may operate continuously, i.e., 8760 hours/year.

2. The maximum process rate of the MEEs shall neither exceed 184,500 lbs/hr dry black liquor solids (BLS), nor 4,428,000 lbs/day dry BLS. This reflects a 1987 TPD ADUP (tons per day of air dried unbleached pulp) production rate for the mill.

PERMITTEE:

Permit Number: AC 16-168609

PSD-FL-141

Seminole Kraft Corporation

Expiration Date: April 1, 1993

SPECIFIC CONDITIONS:

3. The TRS gases from the MEEs shall be combusted in the No. 2 or No. 3 lime kiln. The TRS gases from the MEEs shall be subjected to a minimum temperature of 1200° for at least 0.5 second. The No. 2 and No. 3 lime kiln exhaust gases shall not contain TRS in excess of 20 ppmvd at standard conditions corrected to 10% O₂ as a 12-hr average, in accordance with F.A.C. Rule 17-2.600(4)(c)5. The construction permits for the No. 2 and No. 3 lime kilns shall be amended to state that they are the pollution control devices for the MEE system.

4. The MEE system is subject to the provisions of F.A.C. Rule 17-2.600(4)(c)1.c., which includes the requirement of establishing a contingency plan.

5. All process equipment shall be maintained in good operating condition to minimize fugitive gaseous emissions.

6. In the event that a compliance test has to be performed on the MEE system for TRS emissions, EPA Method 16/16A, pursuant to F.A.C. Rule 17-2.700 and 40 CFR 60 Appendix A, shall be used.

7. The MEE system is subject to the provisions of F.A.C. Rules 17-4.130 - Plant Operation Problems; 17-2.240 - Circumvention; 17-2.250 - Excess Emissions; 17-2.700(7) - Reports; 17-2.710(4) - Quarterly Reporting Requirements; and all other applicable provisions of F.A.C. Chapters 17-2 and 17-4; the July 1, 1988 version of 40 CFR 60 Subpart BB - NSPS for Kraft Pulp Mills; 40 CFR 60.7 - Notification and Records; and 40 CFR 60.8 - Performance Tests.

8. The No. 2 and No. 3 lime kiln shall be tested for TRS and SO₂ emissions to determine whether or not further technical review is required for the project pursuant to F.A.C. Rule 17-2, and 17-4. DER's Bureau of Air Regulation (BAR) may require a determination of the kiln operating temperature in the zone where TRS gases are combusted.

9. Objectionable odors shall not be allowed off plant property, in accordance with F.A.C. Rule 17-2.620(2).

10. Any change in the method of operation, raw materials and chemicals processed, equipment, or operating hours pursuant to F.A.C. Rule 17-2.100, defining modification, shall be submitted for approval to BAR.

PERMITTEE:

Seminole Kraft Corporation

Permit Number: AC 16-168609
PSD-FL-141

Expiration Date: April 1, 1993

SPECIFIC CONDITIONS:

11. The Duval County's Bio-Environmental Services Division (BESD) office shall be notified, in writing, a minimum of 15 days prior to source testing pursuant to F.A.C. Rule 17-2.700(2)(a)5. Written reports of the test results shall be submitted to the BESD office within 45 days of test completion.

12. The existing permits for the three existing sets of MEEs Nos. 1, 2, and 3 (AC 16-141799, -800, -801), which shall be permanently shut down and made incapable of operation, shall be turned in to the BESD office upon receipt of the operation permit for the new set of MEEs. The method by which the existing units will be made incapable of operation will be approved by BAR and BESD.

13. 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).

14. An application for an operation permit must be submitted to the BESD office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. 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. Rule 17-4.220).

Issued this 5 day
of Jan, 1990

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION


Dale Twachtmann, Secretary

Attachments 1-9 Available Upon Request

Attachment 10



Seminole Kraft Corporation

Jacksonville Mill

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

November 30, 1989

904 751-6400

RECEIVED

Mr. Clair H. Fancy, P.E.
Bureau of Air Regulation
Florida DER
2600 Blair Stone Road
Tallahassee, FL 32399-2400

DEC 04 1989

NOV 30 1989

DER-BAQM

Dear Mr. Fancy:

Seminole Kraft Corporation has reviewed Florida DER's preliminary determination to issue a construction permit for a new recovery boiler (AC16-168607), smelt dissolving tank (AC16-168608) and multiple effect evaporator (AC16-168609) at our mill in Jacksonville. We would like to provide the Department with a number of comments regarding the proposed permits.

First, we would like to make a number of comments that apply to conditions which are similar (although not the same number) in all three permits. All three permits contain the specific condition that written reports of compliance testing be submitted to the BESD office within 30 days of test completion. All our existing permits provide 45 days for such submittal. We request the Department modify specific condition 10 or 11 in each permit to allow 45 days. This is particularly important for the SO₂ and NO_x testing required by these permits which will be conducted by outside contractors which are very busy and cannot always be depended on to give quick report turn around.

Each permit also contains a condition that we permanently shut down and dismantle the old sources that each new source is replacing. We understand that these old sources must be permanently shut down and that the operating permits for these old sources must be surrendered to the Department. However, we have no plans to immediately demolish these sources due to the very

Mr. Clair H. Fancy, P.E.
November 30, 1989
Page 2

large expense of such an undertaking. Therefore, we request that the Department remove the words "and dismantled" from this specific condition in each of these permits.

Further each permit contains a specific condition that requires prior approval to be obtained for any change in the method of operation, raw material and chemicals processed, equipment, or operating hours pursuant to F.A.C. Rule 17-2.100. We request the Department revise this permit condition pursuant to Rule 17-2.100(119), so that prior approval is required only when there are actual emission increases associated with such changes.

We note that the expiration date for these construction permits is November 12, 1992 which is the final compliance date under the TRS rule. We understand that a compliance test demonstrating compliance with this rule must be completed by November 12, 1992. However, this construction permit should be allowed to run an adequate time beyond that date to allow submission of the application for an operating permit and the compliance test report as well as the time allowed in the rules for the Department to issue the operating permit for these new sources. Therefore, at a minimum, this construction permit expiration date should be extended from November 12, 1992, to April 1, 1993 (45 days for submitting compliance report and application for operating permit plus the 90 days allowed for the Department to issue an operating permit). This change in expiration date in each permit, will allow us to comply with specific condition 13 or 14 (depending on which permit) which requires that we make application for an operating permit 90 days prior to the expiration date of the construction permit.

Specific Condition 13 or 14 in each permit requires that we file an application for an operating permit at least ninety (90) days prior to the expiration date of the construction permit for each source or, within forty-five (45) days after completion of the compliance test, whichever occurs first. Assuming the expiration date is changed to April 1, 1993, as indicated above, we have no problem with the 90 day requirement. However, we do not believe DER's rules require that an application for an operating permit be submitted within 45 days of performing a compliance test and, therefore, we request that DER remove this requirement from Specific Condition 13 or 14 of each construction permit.

We have a number of comments which only apply to the recovery boiler permit. First, as previously discussed with Mr. Andrews, we have a great deal of concern regarding the Department's BACT determination for NO_x. We certainly agree that recovery boiler

Mr. Clair H. Fancy, P.E.
November 30, 1989
Page 3

technology has apparently improved to the point that the 180 ppm for NO_x indicated in our application is unnecessarily high. However, while we and the Department are aware that recovery boiler permits have been issued over the last year that contain NO_x limits in the 50 to 75 ppm range, there is great concern on the part of the recovery boiler manufacturers that these extremely low NO_x levels will not be achievable in some circumstances as the chemistry of individual mill recovery systems are quite different. We have notified all potential recovery boiler suppliers that we now require the NO_x emissions to meet 75 ppm (8% O₂), but we do not yet have written responses from each indicating their agreement to warranty such a low level and what caveats will come with such warranties. Accordingly, as discussed with Mr. Andrews, Seminole Kraft requests that the Department add a reopener clause to the NO_x BACT determination which would allow us to request a modification to the NO_x limit if after best efforts to meet this very stringent limit, we and the recovery boiler manufacturer conclude the 75 ppm limit is not achievable.

There is an apparent typo in the Specific Condition #3. The heat input should read 1,125,000,000 BTU/hour. We also note that Specific Condition #3 appears twice.

In Specific Condition #7, the Department is requiring a recorder for the read out from the CEMS. We plan to use a microprocessor to collect CEMS data and hard copy will be recorded using a computer printout. We assume this will satisfy the requirement for a recorder.

Specific Condition #7 requires the Oxygen monitor to have the span set at 20% O₂. We believe this should be 20.8% or 21% to more accurately reflect the O₂ content of ambient air.

The following comment pertains to smelt dissolving tank permit Specific Condition #3 which requires that visible emissions from the smelt dissolving tank be less than 20% opacity. As the Department knows, this is a wet source and, as such, opacity is not really meaningful. Therefore, we request that DER delete the opacity requirement from the smelt dissolving tank permit or alternatively add to Specific Condition #3 as shown below:

Visible Emissions (VE):

If the Department observes visible emissions using EPA Method 9 pursuant to F.A.C. Rule 17-2.700(6)(b)9 in excess of 20% opacity, it shall be considered good

Mr. Clair H. Fancy, P.E.
November 30, 1989
Page 4

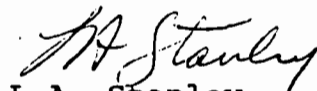
reason to believe that the applicable mass emission standard is in danger of being violated. The permittee shall be required to run a special compliance test in accordance with F.A.C. Rule 17-2.700(2)(b). Such test shall be conducted within 14 days after the Department has notified the permittee of the applicability of this permit condition.

The following comments apply to the multiple effect evaporator permit. We note Specific Condition #3 requires that the TRS gases from the multiple effect evaporator be combusted in the No.2 or No.3 lime kiln and further, that these gases be subjected to a minimum temperature of 1200°F for at least 0.5 second. Indeed, the TRS rule only requires that these gases be incinerated in a lime kiln and that the lime kiln TRS emissions continue to meet the 20 ppm TRS limitation applied to them by the TRS rule. Therefore, we request that DER remove the requirement that the TRS gases from the multiple effect evaporators be subjected to 1200°F for 0.5 second as this is not authorized by DER regulations.

Finally, we have noted a calculation error in DER's BACT determination for NO_x. DER should have used a heat value for black liquor (wet basis) of 4522 BTU/lb and a feed rate of 248,800 lb/hr (wet basis). This produces a heat input of 1,125,000,000 BTU/hr. Then the NO_x emissions/mmBTU = $369.3/1,125 = 0.33$ lb NO_x/mmBTU.

We appreciate this opportunity to comment on these proposed construction permits. Please let us know if you have any questions.

Sincerely,



L.A. Stanley
General Manager

ah

CC: Bill Thomas
Pradeep Ravel
Barry Andrews
Terry Cole
Curt Barton
Mike Riddle

Attachment 11

DEPARTMENT OF HEALTH, WELFARE
& BIO-ENVIRONMENTAL SERVICES
Bio-Environmental Services Division
Air and Water Pollution Control

DER-BAOM
DEC 06 1989
RECEIVED
December 6, 1989



Mr. Bill Thomas
Bureau of Air Regulation
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Construction Permits - Seminole Kraft Corporation Kraft Recovery Boiler (AC16-168607), Smelt Dissolving Tank (AC16-168608), and Multiple Effect Evaporator (AC16-168609)

Dear Mr. Thomas:

Bio-Environmental Services Division (BESD) submits the following comments on the above-referenced permits for Seminole Kraft Corporation (SKC).

Kraft Recovery Boiler - AC16-168607

- 1) BESD recommends that Specific Condition No. 2 be rewritten.
 2. The maximum process rate shall not exceed 170,833 lbs/hour dry black liquor solids (BLS), 4,100,000 lbs/day dry BLS. This reflects a 1987 TPD ADUP production rate for the mill.

The deletion of 'or' will clarify that both process rates are applicable.
- 2) The maximum heat input to the Recovery Boiler as stated in Specific Condition No. 3 (1,125,000 BTU/Hr) is in conflict with the input of the BACT determination (1,125 MM BTU/Hr). Which is correct?
- 3) The tables in Specific Conditions Nos. 4 and 5 list the basis for determining the emission limits. BESD recommends that the heading of 'basis' be replaced with 'concentration' to assure compliance with both mass emission rates and concentrations.
- 4) BESD requests that specific test methods or determinations for lead, beryllium, VOC, NO_x, and H₂SO₄ mist are specified in this permit.
- 5) Specific Condition No. 3 limits the utilization of No. 6 fuel oil to 750,000 gals/yr. BESD recommends that fuel oil usage data be recorded and made available for review upon request.
- 6) References for record keeping and reporting pursuant to 40 CFR 60.7 and 8 should be a part of this permit.



Mr. Bill Thomas
Page 2
December 6, 1989

Smelt Dissolving Tank - AC16-168608

- 1) Specific Condition No. 3 requires visible emissions to be less than 20% opacity. BESD recommends that visible emissions not be allowed greater than 10% opacity pursuant to Section 17-2.650(2)(c)10.b., FAC.
- 2) The headings in tables of Specific Conditions Nos. 3 and 4, should read 'Concentrations' rather than 'Basis' for reasons previously described.

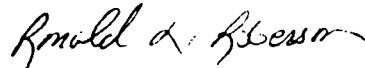
Multiple Effect Evaporator - AC16-168609

- 1) Delete the word 'or' from Specific Condition No. 2.

Jacksonville Environmental Protection Board Rule 2.211, Air Pollution Nuisances, is applicable to this facility. The permittee should be advised, through these permits that, that all local rules and regulations are applicable and will be enforced.

Please contact the undersigned if any additional information is required.

Very truly yours,



Ronald L. Roberson
Associate Engineer

RLR/rlj

cc: Mr. A. G. Kutyna, P.E., DER
BESD Air Permitting File
BESD File 2155-A
(Disk: 1/38)

Attachment 12



BEST AVAILABLE COPY

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

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

REF: 4APT/MP/sch

DEC 6 1989

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

RECEIVED
DEC 11 1989
DER-BAQM

RE: Technical Evaluation and Preliminary Determination for Seminole Kraft (PSD-FL-141)

Dear Mr. Fancy:

We have reviewed your November 22, 1989, submittal of the above referenced Prevention of Significant Deterioration (PSD) package and offer the following comments which were discussed on November 29, 1989, between Mr. Pradeep Raval of your staff and Mark Armentrout of my staff.

We concur with the Florida Department of Environmental Regulations's (DER) BACT determination for oxides of nitrogen (NO_x) from the new recovery boiler.

Permit No. AC 16-168607 (Recovery Boiler), Specific Condition 3, is written twice. We also recommend that the fuel oil limitation contained in this provision be made enforceable by removing the "anticipated amount" and replacing this language with an enforceable cap on annual usage. There also appears to be typographical error in this provision in specifying the maximum heat input. Rather than 1,125,000 Btu/hr, the limit should be 1,125,000,000 Btu/hr (1,125 mmBtu/hr).

We appreciate the opportunity to provide comments on this PSD package. If you have any questions, please contact Mark Armentrout of my staff, at (404) 347-2864.

Sincerely yours,

Bruce P. Miller, Chief
Air Programs Branch
Air, Pesticides and Toxics
Management Division

cc: Mr. L.A. Stanley
Seminole Kraft Corporation
9469 Eastport Road
Jacksonville, Florida 32218

*copied: P. Raval
T. Armentrout
M. Miller
J. Miller, NED
A. Rice, PSD
C. Stanley, NPS
C. Miller, ST*

Attachment 13

DEPARTMENT OF HEALTH, WELFARE
& BIO-ENVIRONMENTAL SERVICES
Bio-Environmental Services



December 21, 1989

RECEIVED

DEC 22 1989

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

DER-BAQM

**RE: CONSTRUCTION PERMITS - SEMINOLE KRAFT CORPORATION
KRAFT RECOVERY BOILER (AC16-168607)
SMELT DISSOLVING TANK (AC16-168608)
MULTIPLE EFFECT EVAPORATOR (AC16-168609)**

Dear Mr. Fancy:

Bio-Environmental Services Division (BESD) has reviewed Seminole Kraft Corporation's (SKC) letter dated November 30, 1989, submitted as comments to the Intent to Issue of the above referenced construction permits. BESD provides the following comments regarding SKC's letter:

1. BESD does not object to allowing submission of written reports of compliance testing within 45 days of test completion. However, reports must be received by BESD no later than the final compliance date, November 12, 1992.
2. The existing sources must be permanently shut down and the operating permits must be surrendered by the final compliance date. These sources should be disabled such that they are inoperable at any time. BESD does not object to the deletion of "and dismantle".
3. Rule 17-2.100(122) defines modification.
4. Pursuant to SKC's TRS compliance plan dated October 16, 1987, final compliance will be accomplished not later than November 12, 1992. To achieve compliance, BESD requires that all written reports demonstrating final compliance be received no later than November 12, 1992. Any expiration date set beyond November 12, 1992 would place SKC in violation of their TRS Compliance Plan.



Mr. Clair H. Fancy, P.E.

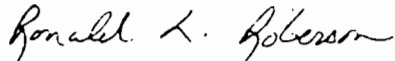
December 21, 1989

Page 2

5. BESD concurs with the DER BACT determination for NO_x.

Any questions in this matter should be directed to the undersigned at 904/630-3666.

Very truly yours,



Ronald L. Roberson
Associate Engineer

RLR/ns

cc: Mr. A. Kutyna, P.E., DER
BESD File 2155-A
BESD Air Permitting File
Mr. L. A. Stanley, Seminole Kraft Corporation

Disc 2/23

Attachment 14



United States Department of the Interior
FISH AND WILDLIFE SERVICE

MAILING ADDRESS
Post Office Box 25486
Denver Federal Center
Denver, Colorado 80225

STREET LOCATION:
134 Union Blvd.
Lakewood, Colorado 80228

IN REPLY REFER TO:

RW Air Quality
Mail Stop 60130

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

Dear Mr. Fancy:

We have reviewed the information you forwarded to us regarding the proposed modification to Seminole Kraft Corporation's (Seminole) kraft pulp and paper mill in Jacksonville, Florida. The mill is located approximately 55 km southeast of Okefenokee Wilderness Area, a class I area administered by the U.S. Fish and Wildlife Service. We appreciate your continued cooperation in notifying us of projects that have the potential to impact the air quality or air quality related values of our class I lands.

We understand that total mill-wide emissions as a result of the modification will decrease for carbon monoxide -160 tons per year (TPY), particulate matter -12.6 TPY, lead -0.16 TPY, beryllium -0.012 TPY, sulfuric acid mist -5.8 TPY, and volatile organic compounds (VOCs) -92.3 TPY. Emissions of sulfur dioxide will increase 6.4 TPY, and nitrogen oxides (NO_x) will increase 349.1 TPY. Under the PSD regulations only the increase in NO_x is considered to be significant, and consequently PSD review is required for that pollutant.

Seminole performed an analysis of the class I nitrogen dioxide (NO_2) increment. It predicted that 0.016 ug/m^3 of the annual increment would be consumed. This represents less than one percent of the allowable PSD NO_2 increment of 2.5 ug/m^3 . Based on this relatively minor increase in the existing NO_2 level at Okefenokee Wilderness Area, the NO_x emissions resulting from the proposed modification should not significantly impact the air quality related values of the wilderness area.

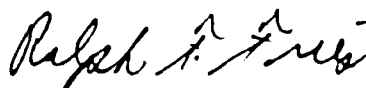
We recommended to your staff that the NO_x emission limitation for the new recovery boiler proposed by Seminole be at least as stringent as that required for other recovery boilers proposed elsewhere. We are pleased to see that in the draft permit the State has lowered the NO_x limit from the 180 ppm proposed by Seminole to 75 ppm, a rate comparable to the other recovery boilers. This is consistent with EPA's "top down" approach, and we commend the State for requiring the lower limit.

Seminole and the State conducted a visibility screening analysis using the VISCREEN model from the Environmental Protection Agency's Workbook for Plume Visual Impact Screening and Analysis (September 1988). It was concluded that the proposed facility would not cause an adverse impact on visibility in Okefenokee Wilderness Area. This conclusion is too broad for the type of model that was used. VISCREEN is a plume visual impact screening model intended for use in evaluating the potential for visibility impairment due to plume impacts. In this case the results allow a conclusion that there is low potential for visibility impairment due to plumes in the class I area as a result of emission from the proposed modification.

Regardless of the VISCREEN results for plume impacts, the potential of the proposed source to contribute to the most insidious visibility problem in the south and east still exists. Regional haze is a problem that impairs visibility in the wilderness area and the surrounding region. Visibility in the eastern U.S. has degraded steadily since the early 1950's, with the most dramatic changes occurring in the summer months (Husar et al. 1981). Near a source (within 100km), such as an urban center, powerplant or other industrial facility, haze is a mixture of gases and secondary aerosols. Gaseous "precursor" emissions from a source are converted through very complex reactions into secondary aerosols. Sulfur oxides convert into sulfuric acid and ammonium sulfate, nitrogen oxides convert to nitric acids and ammonium nitrate, and hydrocarbons become organic aerosols (Malm et al. 1989). In most cases, it is not presently possible to estimate the contribution of an individual source to regional haze. However, monitoring and modeling studies that are being conducted presently may provide a means of assessing the contribution of individual sources to regional haze. In the meantime, we encourage the State of Florida to take all steps possible to reach national and State visibility goals by limiting pollutants, such as SO₂, NO_x and VOCs, that contribute to visibility degradation not only in the class I area but in the whole region.

If you have any questions regarding this matter, please contact Bud Rolofson of our Air Quality Office at (303) 969-2071.

Sincerely,



Ralph F. Fries
Acting Assistant Regional Director
Refuges and Wildlife, Region 6

P. Powell
B. Anderson
M. Simon
JAT/ET