

P 794 947 069
RECEIPT FOR CERTIFIED MAIL
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Sent to Mr. Henry Hirschman, Gen. Mgr.	
GA-Pacific Corp.	
Street and No. P.O. Box 919	
P.O., State and ZIP Code Palatka, FL 32078-0919	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date Mailed: 04/29/88 Permits: AC 54-142282,-288, -288m -291	

PS Form 3800, June 1985

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
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1. Show to whom delivered, date, and addressee's address. Restricted Delivery
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3. Article Addressed to: Mr. Henry Hirschman, General Mgr. Georgia-Pacific Corporation Post Office Box 919 Palatka, FL 32078-0919	4. Article Number P 794 947 069
	Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail
	Always obtain signature of addressee or agent and DATE DELIVERED.
5. Signature - Addressee X Georgia Pacific Corp	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X J Brown	
7. Date of Delivery 5/2/88	

UNITED STATES POSTAL SERVICE

OFFICIAL BUSINESS

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RECEIVED

MAY 3 1988

DER-BAQM



PENALTY FOR PRIVATE
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RETURN

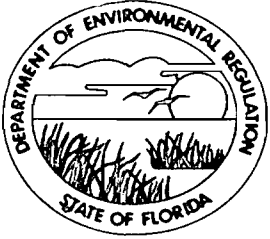
TO



Print Sender's name, address, and ZIP Code in the space below.

Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

ATTN: M. JANES



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

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION NOTICE OF PERMIT

Mr. Henry Hirschman, General Manager
Georgia-Pacific Corporation
Post Office Box 919
Palatka, Florida 32078-0919


April 29, 1988

Enclosed are permits Nos. AC 54-142282, 54-142283, 54-142288 and 54-142291, for Georgia-Pacific Corporation to construct a No. 3 digesting accumulator and improve the turpentine condenser system for the batch digester system; construct a pre-evaporator stage for the multiple effect evaporation system; construct a condensate stripper system; construct a total reduced sulfur (TRS) incinerator; and construct a noncondensable gas handling system to convey emissions to the TRS incinerator. The action is part of a plan to comply with the TRS Rules adopted on March 21, 1985. The project will be located at Georgia-Pacific Corporation's kraft pulp mill near Palatka, Putnam County, Florida. This permit is 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.

Deputy Chief

Bureau of Air Quality Management

Copy furnished to:

William Stewart, NE Dist.
David Buff, P.E., KBN
Vernon Adams, Georgia-Pacific

Final Determination

Georgia-Pacific Corporation
Putnam County

Digester System
Permit No. AC 54-142282

Multiple Effect Evaporation System
Permit No. AC 54-142283

Condensate Stripper System
Permit No. AC 54-142288

TRS Incinerator
Permit No. AC 54-142291

Florida Department of Environmental Regulation
Bureau of Air Quality Management
Central Air Permitting

April 22, 1988

Final Determination

The applications by the Georgia-Pacific Corporation to construct a new No. 3 digesting (blow heat) accumulator and improve the turpentine condenser for the digester system; construct a new pre-evaporator stage for the multiple effect evaporation system; construct a new condensate stripper system; construct a TRS incinerator; and, construct a noncondensable gas handling system to convey emissions to the TRS incinerator have been reviewed by the Bureau of Air Quality Management. The project will be located at the Georgia-Pacific Corporation kraft pulp mill near Palatka, Putnam County, Florida. Public notice of the Department's Intent to Issue the permits appeared in The Palatka Daily News on April 5, 1988.

Copies of the Technical Evaluation and Preliminary Determination and associated materials have been available at the Northeast District office in Jacksonville and at the Bureau of Air Quality Management office in Tallahassee.

Comments about the proposed permits were received from Georgia-Pacific Corporation and new policy guidance was received from the U.S. EPA. The comments and the Department's responses are as follows:

Comment: The applicant asked the Department to correct two typographical errors in Specific Conditions Nos. 6.a. and 6.b. The white liquor input rate to the digester system should have been 566,501 lbs/hr instead of 556,501 lbs/hour. The black liquor solids feed rate to the concentrator should be 259,121 lbs/hr instead of 238,958 lbs/hour.

Response: The requested changes to Specific Conditions Nos. 6.a. and 6.b. have been made.

Comment: The applicant asked that Specific Condition No. 7.c. be changed to reflect a specific upper limit for the sulfur content of the methanol to be burned in the TRS incinerator. The applicant thought the Department's specification of the sulfur content limit as the minimum detectable limit of the fuel sampling method was too vague. The applicant suggested a limit of 0.001% sulfur by weight.

Response: The Department concurs and has made the requested change to Specific Condition No. 7.c. No change in the allowable emissions will result from this action.

Comment: The applicant asked that Specific Condition No. 14 be changed such that the applicant can elect to perform

an emissions test in order to demonstrate that an emissions increase does not result from the addition of the pre-evaporator stage of evaporation to the multiple effect evaporation system. The applicant suggested that the Department condition the permit such that the multiple effect evaporation system would automatically become subject to the federal NSPS, if the elective testing was not performed.

Response: The Department concurs with the applicant's request and has amended Specific Condition No. 14. The projects would not become subject to the federal PSD even if the multiple effect evaporation system becomes subject to the federal NSPS. The addition of the pre-evaporator stage will result in both process and pollution control benefits in this case. The pre-evaporator stage of evaporation allows the applicant to separate and treat certain strong condensates that would normally be used or discharged without treatment. As part of the program of compliance with the state TRS regulations, the applicant's project helps ensure that TRS gases are not simply collected in strong condensates and then re-emitted later. The strong condensates contain methanol. The recovery of methanol from the strong condensate reduces BOD loading to the water treatment system and provides a low sulfur fuel. This fuel is a viable alternative to No. 6 fuel oil. These conclusions are based on the information supplied by the applicant and pursuant to federal publications. So, the project would be exempt from PSD review pursuant to the agreement between the U.S. EPA and the paper industry. No additional permit conditions will be needed, if the federal NSPS becomes applicable to the multiple effect evaporation system, because the permits already include these requirements as a result of the NSPS condensate stripper.

Comment: The applicant asked about acceptable procedures to be used for the measurement of gas velocities in small diameter ducts with a low gas flow. The question was asked in conjunction with Specific Condition No. 14.

Response: A review of the permit made it clear that Specific Conditions Nos. 3, 4, 5, and 14 needed to be amended to include the specific source test methods. This is consistent with federal policy and provides additional clarification about how the emissions of regulated pollutants are to be determined.

The final action of the Department is issuance of the permit.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ
GOVERNOR
DALE TWACHTMANN
SECRETARY

PERMITTEE:
Georgia-Pacific Corporation
P. O. Box 919
Palatka, Florida 32078-0919

Permit Numbers: AC 54-142282
AC 54-142283
AC 54-142288
AC 54-142291

Expiration Date: Sept. 9, 1989
County: Putnam
Latitude/Longitude: 29° 41' 00" N
81° 40' 45" W

Project: Construction of No. 3
Digesting Blow heat Accumulator;
Pre-Evaporator Stage for No. 1,
2, 3, and 4 Multiple Effect
Evaporator Systems with Concen-
trator Stage; NSPS Condensate
Stripper System; TRS Incinera-
tor; and Noncondensable Gas
Handling System

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 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:

The construction of a new No. 3 digesting blow heat accumulator as a replacement for No. 1 and No. 2 digesting accumulators. The construction of improvements to the turpentine condenser system. The construction of a pre-evaporator (blow heat evaporator) stage that will precede the No. 1, 2, 3, and 4 multiple effect evaporators which are followed by a concentrator stage--the multiple effect evaporation system in these permits. The construction of a steam condensate stripper system subject to 40 CFR 60. The construction of a TRS incinerator and a noncondensable gas (NCG) handling system to convey all air pollutant emissions from the digester system, multiple effect evaporation system, and condensate stripper system to the TRS incinerator.

The permit numbers are assigned as follows: AC 54-142282, Digester System; AC 54-142283, Multiple Effect Evaporation System; AC 54-142288, Condensate Stripper System; and, AC 54-142291, TRS Incinerator.

The modification shall be in accordance with the attached permit application except as otherwise noted under the General Conditions and Specific Conditions set forth in this permit.

BEST AVAILABLE COPY

PERMITTEE:
Georgia-Pacific Corp.

Permit Number: AC 54-142282
54-142283
54-142288
54-142291
Expiration Date: Sept. 9, 1989

Attachments:

1. TRS Compliance Plan and Construction Permit Applications, Georgia-Pacific Corporation, Palatka, Florida, November 1987, received November 20, 1987.
2. C. H. Fancy's letter to Georgia-Pacific dated December 18, 1987.
3. Vernon Adams' letter to C. H. Fancy received January 27, 1988.
4. Air Quality Impact Analysis of Georgia-Pacific Corporation, Palatka, Florida, December 1987 received January 27, 1988.
5. Vernon Adams' letter to M. Harley received February 9, 1988.
6. Vernon Adams' letter to Johnny Cole received February 15, 1988.
7. Technical Evaluation and Preliminary Determination dated March 17, 1988.
8. Final Determination dated April 22, 1988.

PERMITTEE:
Georgia-Pacific Corp.

Permit Number: AC 54-142282
54-142283
54-142288
54-142291

Expiration Date: Sept. 9, 1989

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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. Nor 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 does not constitute 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, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, 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:
Georgia-Pacific Corp.

Permit Number: AC 54-142282
54-142283
54-142288
54-142291
Expiration Date: Sept. 9, 1989

GENERAL CONDITIONS:

6. The permittee shall at all times 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, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring 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 notify and provide the Department with the following information:

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

PERMITTEE:
Georgia-Pacific Corp.

Permit Number: AC 54-142282
54-142283
54-142288
54-142291
Expiration Date: Sept. 9, 1989

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 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 arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

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 17-4.12 and 17-30.30, 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 is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- () Determination of Best Available Control Technology (BACT)
- () Determination of Prevention of Significant Deterioration (PSD)
- (x) Compliance with New Source Performance Standards. (AC 54-142288)

14. The permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

PERMITTEE:
Georgia-Pacific Corp.

Permit Number: AC 54-142282
54-142283
54-142288
54-142291
Expiration Date: Sept. 9, 1989

GENERAL CONDITIONS:

- b. The permittee shall retain 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), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be 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 date(s) 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 submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. The sources are permitted to operate continuously (i.e., 8760 hrs/year).
2. The emissions from the digester system (consisting of 13 digester systems); the multiple effect evaporation system (consisting of 4 multiple effect evaporator systems); and the NSPS condensate stripper system shall be collected and incinerated in the TRS incinerator. Note that each digester system includes the turpentine condenser system, blow heat accumulator, etc.; and that each multiple effect evaporator

PERMITTEE:
Georgia-Pacific Corp.

Permit Number: AC 54-142282
54-142283
54-142288
54-142291
Expiration Date: Sept. 9, 1989

SPECIFIC CONDITIONS:

system includes the concentrator, the pre-evaporator, hotwells, etc. Actual mass emissions from each system shall be determined prior to and after any future changes, meaning those changes to the permitted systems not specifically authorized by these permits.

3. TRS emissions from the TRS incinerator shall not exceed 5 ppmv on dry basis at standard conditions corrected to 10% oxygen as a 12-hour average. Mass TRS emissions from the TRS incinerator shall exceed neither 0.12 lb/hr nor 0.53 ton/year. The mass TRS emissions are the maximum permitted aggregate total mass emissions allowed for the permitted sources. TRS emissions shall be determined by EPA Methods 1, 2, 3, and either 16 or 16A. No objectionable odor shall be emitted from the TRS incinerator.

4. Particulate emissions from the TRS incinerator shall not exceed 0.08 grain/dry standard cubic foot corrected to 50% excess air. Particulate emissions from the TRS incinerator shall exceed neither 2.44 lbs/hour nor 10.69 tons/year. Particulate emissions shall be determined by EPA Methods 1, 2, 3, and 5.

5. SO₂ emissions from the TRS incinerator shall exceed neither 1200 lbs/hr nor 3434 tons/year. SO₂ emissions shall be determined by EPA Methods 1, 2, 3, and 6.

6. The following operation rates shall not be exceeded. These operation rates shall be continuously monitored and recorded.

a. The maximum operation rate of the digester system (AC 54-144282) shall exceed neither 235,970 lbs of air dried unbleached pulp (ADUP)/hour nor a 24-hr average of 154,167 lbs of ADUP/hr. The maximum 24-hr average operation rate is based on the nominal 24-hour average input of 291,417 lbs of dry wood chips/hour, 566,501 lbs of white liquor/hr, and 167,078 lbs of black liquor/hour; and the output of 238,958 lbs of dry black liquor solids (BLS)/hr and 932 lbs of crude sulfate turpentine/hour.

b. The maximum operation rate of the multiple effect evaporation system (AC 54-142283) shall not exceed 259,121 lbs of dry BLS/hour at the concentrator outlet. The maximum operation rate is based on a nominal input of 238,958 lbs of dry BLS/hr to the pre-evaporator stage of evaporation; 40,208 lbs of dry

PERMITTEE:
Georgia-Pacific Corp.

Permit Number: AC 54-142282
54-142283
54-142288
54-142291
Expiration Date: Sept. 9, 1989.

SPECIFIC CONDITIONS:

BLS/hour to the No. 1 multiple effect evaporators; 71,482 lbs of dry BLS/hour to each the No. 2 and No. 3 multiple effect evaporators; 75,949 lbs of dry BLS/hour to the No. 4 multiple effect evaporators; and 259,121 lbs of dry BLS/hour to the concentrator stage of evaporation.

c. The maximum operation rate of the condensate stripper system (AC 54-142288) shall exceed neither 681 lbs of methanol/hour nor a 24-hour average of 446 lbs of methanol/hour. The maximum 24-hour average operation rate is based on the nominal input of 45,181 lbs of pre-evaporator effect condensate/hour; 20,016 lbs of turpentine condensate/hour; 6,520 lbs of miscellaneous source condensate/hour; and, 16,200 lbs of steam/hour.

7. The following hourly operation rate and fuel input rates to the TRS incinerator (AC 54-142291) shall not be exceeded. The maximum hourly inputs of fuels shall be continuously monitored and recorded.

a. The total maximum hourly heat input due to methanol and natural gas either singularly or in combination shall not exceed 8.0 million Btu/hr.

b. Natural gas with a sulfur content not to exceed 0.1% by weight may be used during periods of startup, shutdown, and malfunction providing the maximum hourly quantity does not exceed 7,620 cubic feet (60°F and 14.7 psia)/hour. Natural gas may also be used as a supplemental fuel and the total heat input due to all fuels does not exceed that allowed by Specific Condition No. 7.a.

c. Methanol with a sulfur content not to exceed 0.001% by weight may be used providing the maximum hourly quantity does not exceed 124 gallons/hour and the total heat input due to all fuels does not exceed that allowed by Specific Condition No. 7.a.

8. All TRS gases burned in the TRS incinerator shall be subjected to a minimum temperature of at least 1200°F for at least 0.5 second. A device to continuously monitor and record combustion temperature at the point of incineration shall be installed pursuant to all applicable requirements of 40 CFR 60.284(b)(1).

PERMITTEE:
Georgia-Pacific Corp.

Permit Number: AC 54-142282
54-142283
54-142288
54-142291
Expiration Date: Sept. 9, 1989

SPECIFIC CONDITIONS:

9. Excess emissions of TRS from the TRS incinerator shall be reported and evaluated pursuant to FAC Rule 17-2.710(4). For the purposes of this Specific Condition the excess emissions to be reported shall be those defined by 40 CFR 60.284(c)(3)(ii).

10. All excess emissions from the digester system the multiple effect evaporation system, the condensate stripper system, the noncondensable gas handling (NCG) system, and the TRS incinerator shall be subject to the applicable requirements of FAC Rules 17-2.240, 17-2.250, 17-2.600(4)(c)1.c., and 17-2.130. The required contingency plan shall be submitted to the DER Northeast District office no later than June 11, 1989.

11. All continuous monitoring and recording systems shall be regularly calibrated and maintained pursuant to written procedures and schedules recommended by the instrument manufacturer.

12. The TRS incinerator shall be equipped with the point source sampling facilities required by FAC Rule 17-2.700. Point source compliance testing shall be conducted with all sources operating at 90 to 100 percent of the operation rates allowed by Specific Condition Nos. 6 and 7. All point source emission tests shall be conducted using the applicable methods and procedures in FAC Rule 17-2.700.

13. Compliance testing and continuous monitoring system certification shall be in accordance with the provisions of 40 CFR 60. Initial compliance testing, certification, and calibration shall be completed not later than May 12, 1989. Compliance tests shall be conducted annually, thereafter. The compliance test reports shall include all information required by FAC Rule 17-2.700(7). Notification of testing shall be furnished to the DER Northeast District office.

14. If the permittee wishes to retain the existing source designation of the multiple effect evaporation system (AC 54-142283), the permittee shall demonstrate to the DER through emission testing that the installation of the pre-evaporation stage will neither result in increased mass emissions of TRS to the atmosphere nor the noncondensable gas handling system. If the permittee does not elect to test the multiple effect evaporation system pursuant to this specific condition and submit

PERMITTEE:
Georgia-Pacific Corp.

Permit Number: AC 54-142282
54-142283
54-142288
54-142291
Expiration Date: Sept. 9, 1989

SPECIFIC CONDITONS:

the test report required by FAC 17-2.700(7) by June 11, 1989, the multiple effect evaporation system shall be a designated federal NSPS source pursuant to 40 CFR 60, Subpart BB. If the ducts are at least 12 inches in diameter, TRS mass emissions shall be determined by EPA Methods 1, 2, 3, and either 16 or 16A. If the ducts are less than 12 inches in diameter TRS mass emissions shall be determined by EPA Methods 2A, 3, and either 16 or 16A. Each test shall consist of 3 runs.

15. The digester system, multiple effect evaporation system, condensate stripper system, NCG system, and TRS incineration system shall be constructed, operated, and maintained pursuant to all applicable provisions of Chapter 403, FS; FAC Chapters 17-2 and 17-4; and federal regulations.

16. For the purposes of future permits and PSD determinations, the mass emissions of pollutants listed in Table 500-2 and the associated emission changes are:

Compliance

Pollutant	Pre-		Post-		Changes	
	lbs/hr ¹	T/Y ²	lbs/hr ¹	T/Y ²	lbs/hr ¹	T/Y ²
Particulate	--	--	2.4	10.7	+2.4	+10.7
TRS ³	637.5	1824.3	0.1	0.5	-637.4	-1823.8
SO ₂	--	--	1200	3433.9	+1200	+3433.9
NO _x	--	--	1.5	6.8	+1.5	+6.8
CO	--	--	0.4	1.7	+0.4	+1.7
VOC	--	--	0.1	0.3	+0.1	+0.3

¹Based on maximum 3-hour estimate.

²Based on maximum daily estimate.

³Based on information supplied by the company that the TRS gases emitted by the pre-evaporators and condensate stripper were previously emitted to the air.


17. Applications for operation permits with the appropriate fees, test results, and other data shall be submitted to the DER Northeast District office within 30 days after the initial compliance testing is completed, but not later than June 11, 1989.

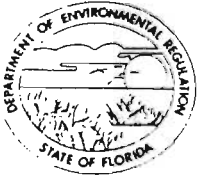
PERMITTEE:
Georgia-Pacific Corp.

Permit Number: AC 54-142282
54-142283
54-142288
54-142291
Expiration Date: Sept. 9, 1989

Issued this 26 day of April 19 88

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION


Dale Twachtman, Secretary



State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To: <u>Claw</u>	Location: _____
To: _____	Location: _____
To: _____	Location: _____
From: _____	Date: _____

Interoffice Memorandum

TO: Dale Twachtmann

FROM: Howard L. Rhodes *HLR*

SUBJ: Approval of Georgia-Pacific Corporation's TRS Compliance Project.

State Construction Permit Numbers:
AC 54-142282, -142283, -142284, -142291

DATE: April 22, 1988

Attached for your approval and signature are permits prepared by Central Air Permitting for the above mentioned company to bring their existing digester system, multiple effect system and condensate stripper system into compliance with the TRS rule. The facility is located in Palatka, Putnam County, Florida.

The applicant submitted comments during the public notice period. These comments were addressed in the Final Determination.

Day 90, after which these permits will be issued by default is May 28, 1988.

I recommend your approval and signature.

HLR/aqm/pr
attachments

RECEIVED

APR 26 1988

Office of the Secretary

RECEIVED

APR 27 1988

DER - BAQM

Check Sheet

Company Name: GEORGIA-PACIFIC CORPORATION
Permit Number: AC 54-142282, -142283, -84, -85, -86, -87, -88, -90, -91
PSD Number: _____
Permit Engineer: _____

Application:

- Initial Application
 - Incompleteness Letters
 - Responses
 - Waiver of Department Action
 - Department Response
 - Other

Cross References:

- AO 54-116068, -69, -70, -71
- ~~Adm. Mem.~~
-

final issue :

142282 = (142282 + 142290)
142283 = (142283, -84, -85, -86, -87)
142288 = 142288
142291 = 142291

Intent:

- Intent to Issue
- Notice of Intent to Issue
- Technical Evaluation
- BACT Determination
- Unsigned Permit

Correspondence with:

- EPA
- Park Services
- Other

Proof of Publication

- Petitions - (Related to extensions, hearings, etc.)
- Waiver of Department Action
- Other

Final Determination:

- Final Determination
- Signed Permit
- BACT Determination
- Other

Post Permit Correspondence:

- Extensions/Amendments/Modifications
- Other

AC17 273607
Rept # 103328

Reichhold Chemicals, Inc.

Corporate Headquarters
P.O. Box 13582
Research Triangle Park, NC 27709-3582

RECEIVED
DER - MAIL ROOM

1992 DEC 22 AM 11: 10

December 17, 1992

REICHHOLD

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

RE: Reichhold Chemicals, Inc. - Pensacola, Florida
Permit N^o AC17-142284, Chemical Reactor R-5
Permit Extension Request

Dear Mr. Fancy:

This submittal is to request a permit extension, from December 31, 1992 until March 31, 1993 for the above-referenced construction permit. A check in the amount of \$50.00 is enclosed to cover the permit extension request fees.

Reichhold Chemicals, Incorporated is in the process of permitting the construction of a new reactor and additional emission control devices at its facility in Pensacola, Florida. A portion of the permit application was a request to incorporate the existing R-5 construction permit and other operating permits at the facility into the new permit. Reichhold personnel have been working with Teresa Heron and other DER personnel since April to complete the necessary permitting. Although the permit has not yet been issued, Ms. Heron has stated she believes she will have a "working draft" ready by the end of December. Reichhold review, the public notice period, and any resulting revisions should allow a final construction permit to be issued before the end of March, 1993. Therefore, the Reactor R-5 permit extension should only be needed through March, 1993.

If you have any questions concerning this request, please call me at (919) 990-7540 or Phil Ulichney at (904) 433-7621 (ext. 316).

Sincerely,



Bradford S. Crawford
Regional Environmental Engineer
Environmental Compliance

BSC/gc
Enclosure

cc: J. Yonson
E. Middleman, NW Dist

Air
001031

REICHHOLD CHEMICALS, INC.

VENDOR NO.	INVOICE DATE	INVOICE NUMBER	INVOICE AMOUNT	DISCOUNT	NET AMOUNT
2449201	12 21 92	EXTENTION OF PERMIT PERMIT NO AC17-142284			\$50.00

006031

DETACH BEFORE DEPOSITING

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER

REICHHOLD COATING POLYMERS & RESINS DIVISION

00133885

PO. BOX 13582
RTP, NC-27709

62-26
311

1110-09

CHECK DATE

12 21 92

MO. DAY YR

DOLLARS	CENTS
PAY *****50	.00****

TO THE
ORDER
OF

DEPARTMENT OF ENVIRONMENTAL REGULATION
BUREAU OF AIR REGULATION
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

REICHHOLD CHEMICALS, INC.

MANUFACTURERS HANOVER, BANK (DELAWARE)

P 280 742 421

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

* U.S.G.P.O. 1985-234-555

PS Form 3800, June 1985

Sent to <i>Henry Hirschman</i>	
Street and No. <i>GA-Pacific Corp.</i>	
P.O. State and ZIP Code <i>P.O. BOX 919</i>	
Postage	<i>Palatka, FL</i>
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date <i>9-7-90</i> <i>AC 54-142282</i> <i>283</i> <i>288</i> <i>291</i>	

SENDER: Complete items 1 and 2 when additional services are requested, and complete items 3 and 4.

Put your address in the "RETURN TO" Space on the reverse side. This will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. Show to whom delivered, date, and addressee's address. (Extra charge) 2. Restricted Delivery (Extra charge)

3. Article Addressed to: <i>Henry Hirschman Gen. Mgr.</i> <i>GA-Pacific Corp.</i> <i>P.O. BOX 919</i> <i>Palatka, FL 32078-0919</i>	4. Article Number <i>P 280 742 421</i>
	Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise
	Always obtain signature of addressee or agent and <u>DATE DELIVERED</u> .
5. Signature - Addressee <i>X</i> <i>Georgia Pacific</i>	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent <i>X</i> <i>A. J. Brown</i>	
7. Date of Delivery <i>9/6/90</i>	

UNITED STATES POSTAL SERVICE

OFFICIAL BUSINESS

SENDER INSTRUCTIONS

Print your name, address and ZIP Code in the space below.

- Complete items 1, 2, 3, and 4 on the reverse.
- Attach to front of article if space permits, otherwise affix to back of article.
- Endorse article "Return Receipt Requested" adjacent to number.

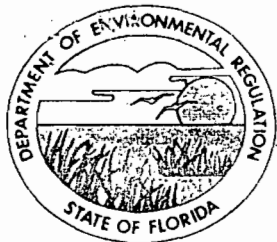


PENALTY FOR PRIVATE
USE, \$300

RETURN
TO 

Print Sender's name, address, and ZIP Code in the space below.

Patty Adamo - D.E.A. - BAR
2000 Blain Stone Rd. - Twin Towers
Tallahassee, FL 32399-2400



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtman, Secretary

John Shearer, Assistant Secretary

September 5, 1990

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Henry Hirschman, General Manager
Georgia-Pacific Corporation
P. O. Box 919
Palatka, Florida 32078-0919

Re: Construction Permit Nos. AC 54-142282, AC 54-142283,
AC 54-142288, AC 54-142291 for the Batch Digester System,
the Multiple Effect Evaporation System, the Condensate
Stripper System, and the TRS Incinerator, respectively.

Dear Mr. Hirschman:

The Department has received and reviewed Mr. Cole's March 9, 1990, request for an extension of the expiration dates for the above referenced permits. The Department grants an extension of time with the understanding that none of the compliance dates for the affected sources will be extended by this action. The applicable compliance dates are set forth in part IX of F.A.C. Chapter 17-2 as well as the above referenced permits.

The following shall be changed and added to the permits:

Expiration Date Change:

FROM: March 9, 1990
TO: December 31, 1990

Specific Condition No. 13 (Addition Following The Last Sentence):

The permittee shall initially test to show compliance with the TRS emission limitations in Specific Condition 3 using the specified EPA methods. Thereafter, compliance with the TRS emission limitations in Specific Condition 3 shall be demonstrated by using continuously monitored and recorded temperature data to show that a minimum temperature of 1200°F is being achieved. The Department reserves the right to require the permittee to show compliance with the TRS emission limitations in Specific Condition 3 using the specified EPA methods prior to each operation permit renewal (every five years).

Henry Hirschman
September 5, 1990
Page Two

Attachments to be Added:

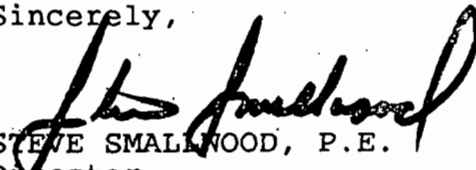
15. T. Cole's letter to C. Fancy dated March 9, 1990, and received March 9, 1990.

16. Final Order - Georgia-Pacific Corporation, petitioner, vs. State of Florida Department of Environmental Regulation, respondent. OGC Case Nos. 89-1660, 89-1661, 89-1662, 89-1663.

This letter shall be attached to the construction permits, AC 54-142282, AC 54-142283, AC 54-142288, and AC 54-142291, and shall become a part of these permits.

Any party to these permits has the right to seek judicial review of the 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.

Sincerely,


STEVE SMALLWOOD, P.E.
Director
Division Of Air Resources
Management

SS/mdh

c: A. Kutyna, NE Dist.
D. Buff, P.E.
V. Adams
T. Cole

ATTACHMENT 15

~~FILE~~
G-P FILE

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

ATTORNEYS AT LAW

M. CHRISTOPHER BRYANT
R. L. CALEEN, JR.
C. ANTHONY CLEVELAND
TERRY COLE
MARTHA J. EDENFIELD
SEGUNDO J. FERNANDEZ
KENNETH F. HOFFMAN
KENNETH G. OERTEL
WILLIAM E. POWERS, JR.
HAROLD F. X. PURNELL
PATRICIA A. RENOVITCH
SCOTT SHIRLEY
W. DAVID WATKINS

SUITE C
2700 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301

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

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

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

RECEIVED

MAR 9 1990

DER-BAQM

March 9, 1990

BY HAND DELIVERY

Mr. Clair Fancy
Deputy Chief
Bureau of Air Quality
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Construction Permits Numbers AC 54-142282,
AC 54-142283, AC 54-142288, AC 54-142291 for the Batch
Digester System, the Multiple Effect Evaporation
System, the Condensate Stripper System, and the TRS
Incinerator, Respectively

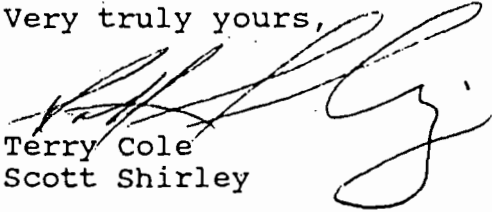
Dear Mr. Fancy:

This will serve as a request for an extension of the expiration dates for the above-referenced construction permits. The current expiration date of these permits is March 9, 1990. As you are probably aware, on June 9, 1989 Georgia-Pacific Corporation timely applied for operating permits for the above-referenced sources. To date those permits have not been issued by the Department of Environmental Regulation. Under Section 120.60, Fla. Stat., the above-referenced construction permits may not legally expire until the Department acts upon Georgia-Pacific Corporation's timely filed request for operating permits for these sources. Therefore, an extension of time is requested for a time sufficient to allow the Department to act on the applications for operating permits.

Mr. Clair Fancy
March 9, 1990
Page 2

If you have any questions or comments please contact
either myself or Terry Cole.

Very truly yours,


Terry Cole
Scott Shirley

Attorneys for Georgia-Pacific
Corporation

SS:slw

cc: Mr. William H. Congdon
Mr. Vernon Adams

J. Pennington
A. Kutynid, NE Dist
LHF/ET

ATTACHMENT 16

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

STRIC
JUN 21 1990
DER-JACKSONVILLE

GEORGIA PACIFIC CORPORATION,)	
)	
Petitioner,)	
vs.)	
)	
STATE OF FLORIDA DEPARTMENT)	OGC Case Nos. 89-1660
OF ENVIRONMENTAL REGULATION,)	89-1661
)	89-1662
Respondent.)	89-1663
)	

FINAL ORDER

On February 21, 1990, the State of Florida Department of Environmental Regulation ("Department") received a petition that could be considered as a request for administrative hearing from Petitioner, Georgia-Pacific Corporation. The petition challenged the Department's intent to grant in part, and deny in part modification of Permit Nos. AC54-142282, AC54-142283, AC54-142288, AC54-142291 to Georgia-Pacific Corporation to construct a Number 3 digesting accumulator and improve the turpentine condenser system for the batch digester system; construct a pre-evaporator stage for the multiple-effect evaporation system; construct a condensate stripper system; construct a total reduced sulphur (TRS) incinerator; and construct a non-condensable gas-handling system to convey emissions to the TRS incinerator in Putnam County.

During the pendency of this proceeding, the parties agreed upon changes to the proposed permits, and executed a Joint

BEST AVAILABLE COPY

Stipulation and Motion to Dismiss. On May 30, 1990, after receiving the Joint Stipulation and Motion to Dismiss, the assigned Hearing Officer issued an Order which closed the Division of Administrative Hearings file and relinquished jurisdiction back to the Department. (Exhibit 1) There being no further matters to consider,

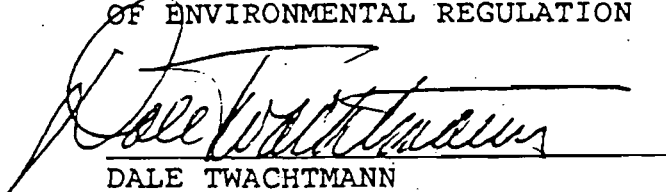
IT IS ORDERED:

The petition is hereby dismissed and the Department's Northeast District Office is directed to issue Permit Nos. AC54-142282, AC54-142283, AC54-142288, AC54-142291 as modified.

Any party to this Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Order is filed with the clerk of the Department.

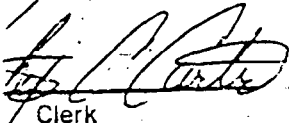
DONE AND ORDERED this 18 day of June, 1990, in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION


DALE TWACHTMANN
Secretary

FILED AND ACKNOWLEDGEMENT

On this date, pursuant to §110.52, Florida Statutes, with the designated Department, receipt of which is hereby acknowledged.

 6-19-90
Clerk Date

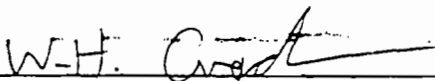
CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished to:

R. L. Caleen, Jr., Esquire
Cortel, Hoffman, Fernandez & Cole, P.A.
Post Office Box 6507
Tallahassee, Florida 32314-6507

by U.S. Mail, this 20th day of June, 1990.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



WILLIAM H. CONGDON
Assistant General Counsel

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400
Telephone: (904) 488-9730

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

GEORGIA PACIFIC CORPORATION,)
)
) Petitioner,)
)
 vs.)
)
) DEPARTMENT OF ENVIRONMENTAL)
) REGULATION,)
)
) Respondent.)
)


CASE NO. 90-1537

ORDER CLOSING FILE

By Joint Stipulation And Motion To Dismiss filed May 30, 1990, the parties gave notice of the settlement and voluntary dismissal of the above-styled dispute. Accordingly, it is hereby ORDERED that:

The case is DISMISSED and the file is CLOSED.

DONE and ORDERED this 4th day of June, 1990, in Tallahassee, Florida.



WILLIAM F. QUATTLEBAUM
Hearing Officer
Division of Administrative Hearings
The DeSoto Building
1230 Apalachee Parkway
Tallahassee, FL 32399-1550
(904) 488-9675

Filed with the Clerk of the Division of Administrative Hearings this 4th day of June, 1990.

Copies furnished to:

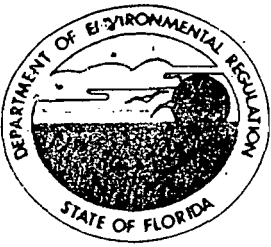
Terry Cole, Esq.
Post Office Box 6507
Tallahassee, Florida 32301

William H. Congdon, Esq.
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RECEIVED
JUN 6 1990

EXHIBIT 1

Dept. of Environmental Reg.
Office of General Counsel



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

April 5, 1990

Mr. Ray Andreu, Chairman
 Florida Pulp and Paper Association
 Technical and Environmental Committee
 Route 3, Box 260
 Perry, Florida 32347

Dear Mr. Andreu:

This is to confirm the agreements made by the Florida Pulp and Paper Association and the Bureau of Air Regulation at our meeting on March 20, 1990, regarding incineration of TRS gases in an incinerator(s).

1. Any company using an incinerator will initially test to show compliance with the 5 ppmvd limit, corrected to 10% oxygen, using DER approved test methods.
2. These tests will not be required annually. The Department reserves the right to require testing for operation permit renewal (every 5 years).
3. Compliance during the five year period will be demonstrated by continuous monitoring and recording of the temperature showing that a minimum temperature of 1200°F is being achieved.
4. By the selected design and the P.E. of record, the construction permit applications shall contain calculations to insure that the specified retention time (i.e., 0.5 seconds) will be achieved by the source in order to provide reasonable assurance to the Department.

Sincerely,

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

CHF/kt



State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To: _____	Location: _____
To: _____	Location: _____
To: _____	Location: _____
From: _____	Date: _____

Interoffice Memorandum

TO: Steve Smallwood

FROM: Clair Fancy *CF*

SUBJ: Approval of a Construction Permit Amendment for Georgia-Pacific Corp. Construction Permit Nos. AC 54-142282, AC 54-142283, AC 54-142288, AC 54-142291 for the Batch Digester System, the Multiple Effect Evaporation System, the Condensate Stripper System, and the TRS Incinerator, respectively.

DATE: September 5, 1990

Attached for your approval and signature is a letter prepared by the Bureau of Air Regulation that will amend the construction permits for the above mentioned company by making the stipulated amendments that resulted in the dismissal of the hearing and changing the expiration date to allow for preparation of the operation permits.

I recommend your approval and signature.

SS/mdh

attachments

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

ATTORNEYS AT LAW

M. CHRISTOPHER BRYANT
R. L. CALEEN, JR.
C. ANTHONY CLEVELAND
TERRY COLE
MARTHA J. EDENFIELD
SEGUNDO J. FERNANDEZ
KENNETH F. HOFFMAN
KENNETH G. OERTEL
WILLIAM E. POWERS, JR.
HAROLD F. X. PURNELL
PATRICIA A. RENOVITCH
SCOTT SHIRLEY
W. DAVID WATKINS

SUITE C
2700 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301

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

TELEPHONE (904) 877-0099

FACSIMILE (904) 877-0981

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

RECEIVED

MAR 9 1990

DER-BAQM

March 9, 1990

BY HAND DELIVERY

Mr. Clair Fancy
Deputy Chief
Bureau of Air Quality
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Construction Permits Numbers AC 54-142282,
AC 54-142283, AC 54-142288, AC 54-142291 for the Batch
Digester System, the Multiple Effect Evaporation
System, the Condensate Stripper System, and the TRS
Incinerator, Respectively

Dear Mr. Fancy:

This will serve as a request for an extension of the expiration dates for the above-referenced construction permits. The current expiration date of these permits is March 9, 1990. As you are probably aware, on June 9, 1989 Georgia-Pacific Corporation timely applied for operating permits for the above-referenced sources. To date those permits have not been issued by the Department of Environmental Regulation. Under Section 120.60, Fla. Stat., the above-referenced construction permits may not legally expire until the Department acts upon Georgia-Pacific Corporation's timely filed request for operating permits for these sources. Therefore, an extension of time is requested for a time sufficient to allow the Department to act on the applications for operating permits.

3-12

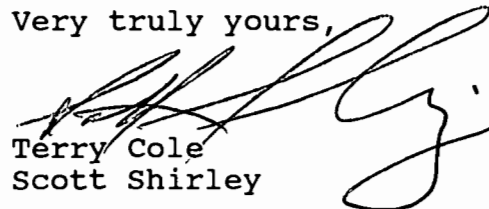
~~OFF~~ FYI

PA

Mr. Clair Fancy
March 9, 1990
Page 2

If you have any questions or comments please contact
either myself or Terry Cole.

Very truly yours,



Terry Cole
Scott Shirley

Attorneys for Georgia-Pacific
Corporation

SS:slw

cc: Mr. William H. Congdon
Mr. Vernon Adams

J. Pennington
D. Kutynid, NE Dist
CHF/BT

P 938 762 772

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

PS Form 3800, June 1985

Sent to Mr. Henry Hirschman, GP Corp.	
Street and No. P.O. Box 919	
P.O., State and ZIP Code Palatka, FL 32078-0919	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date Mailed: 12-7-89 Permit: AC 54-142282, -83. -88, -91	

● **SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. Show to whom delivered, date, and addressee's address. (Extra charge) 2. Restricted Delivery (Extra charge)

3. Article Addressed to: Mr. Henry Hirschman General Manager Georgia-Pacific Corporation P. O. Box 919 Palatka, FL 32078-0919	4. Article Number P 938 762 772
	Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise
	Always obtain signature of addressee or agent and <u>DATE DELIVERED</u> .
5. Signature - Address X <i>Georgia Pacific</i>	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X <i>D. J. Brown</i>	
7. Date of Delivery <i>12/11/89</i>	

UNITED STATES POSTAL SERVICE

OFFICIAL BUSINESS



SENDER INSTRUCTIONS

Print your name, address and ZIP Code in the space below.

- Complete items 1, 2, 3, and 4 on the reverse.
- Attach to front of article if space permits, otherwise affix to back of article.
- Endorse article "Return Receipt Requested" adjacent to number.

RECEIVED

DEC 13 1989

DER-BAQM



PENALTY FOR PRIVATE
USE, \$300

RETURN
TO



Print Sender's name, address, and ZIP Code in the space below.

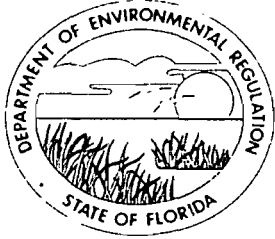
Dept. of Environmental Regulation

Bureau of Air Regulation

2600 Blair Stone Road

Tallahassee, FL 32399-2400

Attn: Patty Adams



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

December 6, 1989

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Henry Hirschman
General Manager
Georgia-Pacific Corporation
P. O. Box 919
Palatka, Florida 32078-0919

RE: Construction Permits Numbers AC 54-142282, AC 54-142283, AC 54-142288, AC 54-142291 for the Batch Digester System, the Multiple Effect Evaporation System, the Condensate Stripper System, and the TRS Incinerator, Respectively

The Department has reviewed Georgia-Pacific's October 4, 1989, request for changes to the specific conditions contained in the above referenced permits. It is our decision that Specific Condition No. 3 which contains the TRS emission limiting standard applicable to the TRS incinerator AC 54-142291 will stand as written. We will interpret the last sentence of that condition to prohibit odorous emissions sufficient to result in verifiable, valid, and legitimate objectionable odor complaints at or beyond the property line. The Department will allow the intervals between mass particulate emission tests to be as long as five years, pursuant to your request. The compliance test frequency for all other pollutants including visible emissions of particulate remains as originally written in Specific Condition No. 13. Specific Conditions Nos. 4, 6, 7, and 11 are amended as follow:

Specific Condition No. 4:

From: Particulate emissions from the TRS incinerator shall not exceed 0.08 grain/dry standard cubic foot corrected to 50% excess air. Particulate emissions from the TRS incinerator shall exceed neither 2.44 lbs/hour nor 10.69 tons/year. Particulate emissions shall be determined by EPA Methods 1, 2, 3, and 5.

To: Particulate emissions from the TRS incinerator (AC 54-142291) shall be limited as follows:

Mr. Henry Hirschman
Page 2
December 6, 1989

a. Visible emissions from the TRS incinerator (AC 54-142291) shall not exceed 5% opacity (no visible emissions) except that visible emissions of up to 20% opacity are allowed for not more than three minutes in any one hour. Visible emissions from the TRS incinerator shall be determined using DER Method 9.

b. Mass particulate emissions from the TRS incinerator (AC 54-142291) shall neither exceed 5.5 lbs/hour nor 24.1 tons/year as measured by EPA Methods 1, 2, 3, and 5. Testing for compliance with the mass particulate emission limitation shall be exempt from the compliance testing schedule applicable to the other regulated pollutants emitted by the TRS incinerator. Instead, testing for compliance with the mass particulate emission limitation shall be completed not later than May 12, 1989, and subsequent testing shall be conducted at intervals of not longer than every 5 years thereafter, unless shorter testing intervals are ordered by the Department.

Specific Condition No. 6.c.:

From: The maximum operation rate of the condensate stripper (AC 54-142288) shall exceed neither 681 lbs of methanol/hour nor a 24-hour average of 446 lbs of methanol/hour. The maximum 24-hour operation rate is based on the nominal input of 45,181 lbs of pre-evaporator effect condensate/hour; 20,016 lbs of turpentine condensate/hour; 6,520 lbs of miscellaneous source condensate/hour; and, 16,200 lbs of steam/hour.

To: The maximum operation rate of the condensate stripper (AC 54-142288) shall neither exceed an input rate of 220 gallons of condensate/minute (109,500 lbs/hr) nor a 24-hour average of 180 gallons of condensate/minute (89,700 lbs/hr).

Specific Condition No. 7:

From: The following hourly operation rate and fuel input rates to the TRS incinerator (AC 54-142291) shall not be exceeded. The maximum hourly inputs of fuels shall be continuously monitored and recorded.

Mr. Henry Hirschman
Page 3
December 6, 1989

- a. The total maximum hourly heat input due to methanol and natural gas either singularly or in combination shall not exceed 8.0 million Btu/hr.
- b. Natural gas with a sulfur content not to exceed 0.1% by weight may be used during periods of startup, shutdown, and malfunction providing the maximum hourly quantity does not exceed 7,620 cubic feet (60°F and 14.7 psia)/hour. Natural gas may also be used as a supplemental fuel and the total heat input due to all fuels does not exceed that allowed by specific condition No. 7.a.
- c. Methanol with a sulfur content not to exceed 0.001% by weight may be used providing the maximum hourly quantity does not exceed 124 gallons/hour and the total heat input due to all fuels does not exceed that allowed by specific condition No. 7.a.

To: The maximum hourly operation rate of the TRS incinerator (AC 54-142291) shall not exceed a total heat input rate due to fuel (methanol and natural gas) of 8.0 million Btu/hour. Natural gas with a sulfur content not to exceed 0.1% may be used during periods of startup, shutdown, and malfunction providing the maximum hourly quantity does not exceed 7,620 cubic feet (60°F and 14.7 psia)/hour. Natural gas may also be used as a supplemental fuel. The permittee shall monitor and record the hourly natural gas input rate.

Specific Condition No. 11:

From: All continuous monitoring and recording systems shall be regularly calibrated and maintained pursuant to written procedures and schedules recommended by the instrument manufacturer.

To: All monitoring and recording systems shall be regularly calibrated and maintained pursuant to written procedures and schedules in accordance with applicable regulations and accepted industry practice.

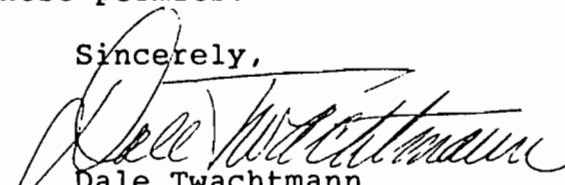
Mr. Henry Hirschman
Page 4
December 6, 1989

Attachments to be Added:

13. H. Hirschman's letter to C. Fancy, dated October 4, 1989, and received October 6, 1989.
14. V. Adams' letter (FAX) to M. Harley dated November 27, 1989, and received November 27, 1989.

This letter shall be attached to the construction permits, AC 54-142282, AC 54-142283, AC 54-142288, and AC 54-142291, and shall become a part of these permits.

Sincerely,



Dale Twachtmann
Secretary

DT/mdh

cc: A. Kutyna, NE District
D. Buff, P.E.
V. Adams
T. Cole



State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To: _____	Location: _____
To: _____	Location: _____
To: _____	Location: _____
From: _____	Date: _____

Interoffice Memorandum

TO: Dale Twachtmann

fr

FROM: Steve Smallwood *[Signature]*

DATE: December 6, 1989

SUBJ: Approval of Construction Permit Amendments for Georgia-Pacific Corporation Construction Permits: AC 54-142282, AC 54-142283, AC 54-142288, and AC 54-142291

Attached for your approval and signature is a letter prepared by the Bureau of Air Regulation that will amend the construction permits for the non-NSPS batch digester system, the non-NSPS multiple effect evaporator system, the NSPS condensate stripper system, and the TRS incinerator. The amendments will make some minor changes to some of the specific conditions to reflect the sources as finally constructed. We are granting most of the amendments requested by the applicant, but the request to delete Specific Condition No. 3 is being denied. Specific Condition No. 3 has been applied in a manner that is consistent with the intent of the authors of the Florida TRS regulations and TRS 111(d) Plan.

I recommend your approval and signature.

SS/mdh

attachments

RECORDED
DEC 6 1989

Office of the Secretary



State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To: _____	Location: _____
To: _____	Location: _____
To: _____	Location: _____
From: _____	Date: _____

Interoffice Memorandum

TO: File

FROM: Mike Harley *Mike*

DATE: November 30, 1989

SUBJ: Construction Permits For Georgia-Pacific's non-NSPS Batch Digester System (AC 54-142282), non-NSPS Multiple Effect Evaporation System (AC 54-142283), and the NSPS Condensate Stripper System (AC 54-142288) to be incinerated in the TRS Incinerator (AC 54-142291)

In their letter of October 4, 1989, Georgia-Pacific Corporation requested that Specific Condition No. 3 of permits AC 54-142282, 283, 288, and 289 be deleted. The permits were issued on April 26, 1988, and accepted by the permittee. After reviewing the company's letter, the permit document, and our intent in drafting the regulation, I strongly recommend denial of the company's request. As the principal author of the state rule requirements, Florida's TRS 11(d) Plan, and the subject permit conditions (Nos. 3 and 8), I believe the regulations, plan, and permit are consistent and correct as they are applied in the permits that were issued on April 26, 1988. A detailed basis for my conclusion is presented in the following discussion. The basis for this conclusion is such that the conclusion would not be changed if the non-NSPS multiple effect evaporation system (AC 54-142283) and the non-NSPS digester system (AC 54-142282) became subject to the federal NSPS. Please note that the permittee's opportunity to challenge the permit conditions in question expired more than a year ago. Also note that the permittee did not choose to legally contest these conditions at that time. Further, the Department does not intend to reopen this permit (especially Specific Conditions Nos. 3, 8, and 11) for renegotiation based on the changes that were made to Specific Conditions Nos. 4, 6, and 7 to accommodate requests by the company.

Permittee's Objection To Specific Condition No. 3
Of The Document For Permits AC 54-142282
AC 54-142283, AC 54-142288, and AC 54-142291

The permittee's letter of October 4, 1989, states:

"Specific Condition 3 imposes a 5 PPMV limit on the

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Permittee's Objection To SC 3 Of Permits AC 54-142282,
AC 54-142283, AC 54-142288, and AC 54-142291--Cont'd.

incinerator, a mass emissions limit and an objectionable odor limit. Specific Condition 8 imposes a temperature limit and a minimum time of 0.5 seconds."

"Ch. 17-2.600(4)(c)1.a. requires that 'Gaseous emissions shall be collected and incinerated in ' . . . ' a combustion device meeting the requirements of either Rule 17-2.600(4)(c)6., or Rule 17-2.660, FAC, or " (emphasis added) meet 17-2.600(4)(c)1.b. if a means other than incineration is used. We are utilizing an incinerator so 17-2.600(4)(c)1.b. clearly does not apply. This leaves us subject to either 17-2.600(4)(c)6. or 17-2.660, not to both. We are subject to the NSPS requirements of 17-2.660 and as such should not be required to meet 17-2.600(4)(c)6. We have supplied you with the names and phone numbers of persons in the industry who operate incinerators and/or strippers. None of them have mass TRS emission limits for other than PSD determination. No other system in Florida permitted to comply with the existing source rule has mass emission limits except for PSD purposes."

The permittee seeks to delete the permit condition limiting the TRS emissions from the TRS incinerator by arguing that the limits applicable to the non-NSPS digester system, non-NSPS multiple effect evaporator system, and NSPS condensate stripper system preclude the Department's ability to limit TRS emissions from the TRS incinerator. A review of the permit document and our intent during the drafting of the regulation leads to an entirely different conclusion.

General Explanation of The Permit Document

The permit document contains conditions that apply to four permitted systems. The permitted systems are the non-NSPS Batch Digester System (AC 54-142282), which consists of 13 individual batch digester systems; the non-NSPS Multiple Effect Evaporation System (AC 54-142283), which consists of 4 individual multiple effect evaporator systems; the NSPS Condensate Stripper System (AC 54-142288); and, the TRS Incinerator (AC 54-142291). Each of the permitted sources is subject to specific conditions that appropriately limit the emissions and operation rates of the sources. It is important to note that the Department considers the TRS Incinerator (AC 54-142291) to be a source pursuant to Rule

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General Explanation of The Permit Document--Cont'd.

17-2.100(91) [Definitions-Incinerator] and Rule 17-2.100(179) [Definitions-Source Or Stationary Source]; and a control device pursuant to Rule 17-2.100(10) [Definitions-Air Pollution Control Equipment]. This position was stated in the March 17, 1988, Technical Evaluation and Preliminary Determination for Georgia-Pacific Corporation's Digester System (Permit No. AC 54-142282), Multiple Effect Evaporation System (Permit No. AC 54-142283), Condensate Stripper System (Permit No. AC 54-142288), and TRS Incinerator (Permit No. AC 54-142291).

Explanation Of Standards Applicable To
non-NSPS Batch Digester System (AC 54-142282)
non-NSPS Multiple Effect Evaporation System (AC 54-142283)
and the NSPS Condensate Stripper System (AC 54-142288)

Specific Condition No. 2 requires the emissions from the non-NSPS Batch Digester System (AC 54-142282), non-NSPS Multiple Effect Evaporation System (AC 54-142283), and the NSPS Condensate Stripper System (AC 54-142288) to be incinerated in the TRS Incinerator (AC 54-142291). This is consistent with the requirements of Rule 17-2.600(4)(c)1.a. [Specific Source Emission Limiting Standards-Kraft (Sulfate) Pulp Mills and Tall Oil Plants-Total Reduced Sulfur (TRS)-Digester Systems, Multiple Effect Evaporator Systems, Condensate Stripper Systems], which applies to digester systems, multiple effect evaporator systems and condensate stripper systems. The permittee believes the election to incinerate emissions in an incinerator that subjects emissions from the digester, evaporator, and condensate stripper systems to 1200°F for 0.5 second exempts the incinerator from regulation under Rule 17-2.600(4)(c)6. [Specific Source Emission Limiting Standards-Kraft Pulp Mills-TRS-Other Combustion Devices Used to Incinerate TRS Emissions].

The federal new source performance standard in 40 CFR 60.283(a)(1)(iii) [Subpart BB-Standards of Performance for Kraft Pulp Mills-Standard for Total Reduced Sulfur (TRS)-Digester System, Brown Stock Washer System, Multiple Effect Evaporator System, Condensate Stripper System] states, ". . . no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere: (1) From any digester system, brown stock washer system, multiple effect evaporator system, or

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Explanation Of Standards For Digester System (AC 54-142282),
Evaporation System (AC 54-142283), and Stripper System
(AC 54-142288)--Cont'd.

condensate stripper system any gases which contain in excess of 5 ppm by volume on a dry basis, corrected to 10 percent oxygen, unless the following conditions are met:
(iii) The gases are combusted with other waste gases in an incinerator or other device, or combusted in a lime kiln or recovery furnace not subject to the provisions of this subpart, and are subjected to a minimum temperature of 1200°F for at least 0.5 second; or" A careful reading of this regulation shows the standard to apply solely to the gases from the NSPS condensate stripper system. The requirements are that the gases from the affected NSPS sources (i.e., condensate stripper system) are to be incinerated in a device such as an incinerator and that the gases from the affected NSPS sources (i.e., condensate stripper system) are to be subjected to 1200°F for 0.5 second. NOTE: The federal NSPS in 40 CFR 60 Subpart BB [Standards of Performance for Kraft Pulp Mills] does not contain a specific TRS emission limiting standard for the TRS Incinerator (AC 54-142291).

Rule 17-2.600(4)(c)1.a. [Specific Source Emission Limiting Standards-Kraft Pulp Mills-TRS-Digester Systems, etc.] was intended to allow the applicant to elect to combine the gases from the non-NSPS Batch Digester System (AC 54-142282) and the non-NSPS Multiple Effect Evaporation System (AC 54-142283) with those from the NSPS Condensate Stripper System (AC 54-142288) prior to treatment in the TRS Incinerator (AC 54-142291).

Explanation Of Standards Applicable To
The TRS Incinerator (AC 54-142291)

Specific Condition No. 3 contains emission limitations that apply to the TRS Incinerator (AC 54-142291). The condition has been established pursuant to the requirements of Rules 17-2.660(2)(b) [Standards of Performance for New Stationary Sources (NSPS)-Applicability], 17-2.500(1)(c) [Prevention of Significant Deterioration-General Prohibitions], 17-2.520 [Sources Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements-Applicability], and 17-4.070 [Standards of Issuing or Denying Permits; Issuance; Denial].

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Explanation Of Standards For TRS Incinerator
(AC 54-142291)--Cont'd.

Rule 17-2.660(2)(b) [Standards of Performance for New Stationary Sources (NSPS)-Applicability] states, "This section shall apply to all affected facilities, the construction or modification of which is commenced after the effective date of any Standard of Performance listed in Rule 17-2.660(2)(a), FAC, above, except that any emission limiting standard contained in Part VI which is more stringent than one contained in a Standard of Performance, which regulates emissions of pollutants or sources of emissions not regulated by an applicable Standard of Performance, shall apply." The federal new source performance standards for kraft pulp mills do not contain a specific TRS emission limiting standard for TRS incinerators. Rule 17-2.600(4)(c)6. [Specific Source Emission Limiting Standards-Kraft Pulp Mills-TRS-Other Combustion Devices] contains a specific TRS emission limiting standard for TRS incinerators. Therefore the standard is applicable to the permittee's TRS Incinerator (AC 54-142291).

NOTE: Page IV-4 of the May 25, 1985 TRS 111(d) Plan that was filed with the EPA states, "Any combustion device that is used to incinerate TRS gases which is not subject to another TRS emission limiting standard in Rule 17-2.600(4)(c) must achieve compliance with a limit of 5 ppm pursuant to the intent of the federal NSPS rules and 111(d) guidance." Page IV-10 of the plan states that Rule 17-2.660(2)(b) [Standards of Performance for New Stationary Sources (NSPS)-Applicability] was amended to qualify an existing provision without modifying its intent. One of the reasons for this provision was to eliminate an affected party's ability to use compliance with minimum temperature and retention time criteria as a means of avoiding the application of a specific and quantifiable TRS emission limiting standard in ppm, pounds per hour, and tons per year. A reading of the full text of 40 CFR 60.283(a)(1) makes it clear that the Department has correctly interpreted the intent of the federal regulation. The key is to avoid being misled into an improper construction by allowing the industry to break this requirement into small independent parts.

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Explanation Of Standards For TRS Incinerator
(AC 54-142291)--Cont'd.

Rule 17-2.500(1)(c) [Prevention of Significant Deterioration-General Prohibitions] states, "The Department shall include appropriate conditions in each permit issued to insure that the provisions of this section are not violated. Such conditions may include but are not limited to, specifying an enforceable emission limitation for a source or facility that is more restrictive than the allowable emission limitation that would otherwise apply."(emphasis added) Since TRS is a pollutant that is regulated pursuant to the requirements of Rule 17-2.500 [PSD], the limitation on concentration and mass emissions of TRS from the TRS Incinerator (AC 54-142291) conforms to this requirement. Such a limitation is also consistent with the requirements and guidance that we receive from the U.S. EPA.

Rule 17-2.520(1) [Sources Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements-Applicability] states, "This section shall apply to all sources which are exempt from the new source review requirements of Sections 17-2.500 and 17-2.510 but which have not been exempted from the general permitting requirements of Section 17-2.210(1) by any provision of Chapters 17-2 or 17-4, Florida Administrative Code."(emphasis added) The operative words are, "new source review requirements." The new source review requirements of section 17-2.500 [PSD] are found in Rule 17-2.500(5) [PSD-Preconstruction Review Requirements]. So, a source that is subject to the requirements of Rule 17-2.520 [Sources Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements] is not exempt from all other requirements of Rule 17-2.500 [PSD]. Rule 17-2.520(3)(b) [Sources Not Subject to Prevention of Significant Deterioration or Nonattainment Requirements-Permitting Requirements] states, "No permit shall be issued to any source subject to this section unless the Department determines that the construction or modification of the source would not interfere with the attainment and maintenance of any state or national ambient air quality standard or maximum allowable increase." It is appropriate to restrict the mass emissions of a source, even where a construction permit is issued for the first time, since a significant increase in TRS emissions from a source could potentially require the source to be reviewed pursuant to Rule 17-2.500(5) [PSD-Preconstruction Review Requirements].

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Explanation Of Standards For TRS Incinerator
(AC 54-142291)--Cont'd.

Rule 17-4.070(1) [Standards of Issuing or Denying Permits; Issuance; Denial] states, "A permit shall be issued to the applicant upon such conditions as the Department may direct, only if the permit applicant affirmatively provides the Department with reasonable assurance based on plans, test results, installations of pollution control equipment, or other information that the construction, expansion, modification, operation, or activity of the installation will not discharge, emit, or cause pollution in contravention of Department standards or rules. . . ." Rule 17-4.070(3) [Standards of Issuing or Denying Permits; Issuance; Denial] states, "The Department may issue any permit with specific conditions necessary to provide reasonable assurance that Department rules can be met. The 5 ppmv limitation on TRS emissions is a Department rule specifically applicable to TRS incinerators. The pound per hour and ton per year limitation on mass emissions from the TRS Incinerator (AC 54-142291) is necessary to limit the potential of the TRS Incinerator (AC 54-142291) to emit TRS and provide reasonable assurance that the standards in Rule 17-2.500 [PSD] will be met. In addition the limitation on the mass and concentration of TRS emissions from the TRS Incinerator (AC 54-142291) is necessary to assure that the operation of this source will not result in emissions contrary to the provisions of Rules 17-2.200 [Statement of Intent], and 17-2.620(2) [Objectionable Odor Prohibited].

Standards Applied To Other Incinerators
And/Or Condensate Strippers

With regard to the list of those who operate incinerators and/or condensate strippers that are not subject to mass emission limitations except for PSD purposes, we note that none of the sources are located in Florida. The statutes, rules, policies, and concerns of the State Of Florida are not precisely the same as those of other states. As a result of these differences, the Department is not under any obligation to implement the policies of other states, interpret its regulations in the same manner as other states, or copy the permits of other states.

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Emission Limitations Applied To
Other Existing Systems In Florida

The permittee states, "No other system in Florida permitted to comply with the existing source rule has emission limits except for PSD purposes." This statement is not factual. Neither the permits issued to Georgia-Pacific nor those issued to other mills for digester, evaporator, and/or condensate stripper systems contain mass emission limitations applicable to the individual systems--if the systems are vented to a combustion source for incineration. But, to the best of my knowledge, each of the permits for the combustion sources that are used to incinerate TRS gases from digester, evaporator, and/or condensate stripper systems contain mass emission limitations on emissions of TRS and other pollutants. Furthermore, the mass emission limitations that are applicable to the combustion sources are not restricted solely to the purposes of PSD.

Additional evidence of our intent and consistency with other permits is the last statement of Specific Condition No. 2, which applies solely to the non-NSPS Batch Digester System (AC 54-142282), non-NSPS Multiple Effect Evaporation System (AC 54-142283), and the NSPS Condensate Stripper System (AC 54-142288) states, "Actual mass emissions from each system shall be determined prior to and after any future changes, meaning those changes to the permitted systems not specifically authorized by these permits." Specific Condition No. 3 then places specific emission limitations on the TRS Incinerator (AC 54-142291).

Explanation Of Specific Condition No. 8

The permittee has apparently misinterpreted the requirements of Specific Condition No. 8 to be an emission limitation for the incinerator. This is not the case. Specific Condition No. 8 states, "All TRS gases burned in the TRS incinerator shall be subjected to a minimum temperature of at least 1200°F for at least 0.5 second. A device to continuously monitor and record combustion temperature at the point of incineration shall be installed pursuant to all applicable requirements of 40 CFR 60.284(b)(1)."

The first sentence of the specific condition is merely intended to reiterate the federal requirement that the combined gases from the non-NSPS Batch Digester System (AC 54-142282), non-NSPS Multiple Effect Evaporation System

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DATE: November 30, 1989

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Explanation Of SC 8--Cont'd.

(AC 54-142283), and the NSPS Condensate Stripper System (AC 54-142288) are to be subjected to the temperature and retention time requirements of 40 CFR 60.283(a)(1)(iii) [Subpart BB-Standards of Performance for Kraft Pulp Mills-Total Reduced Sulfur (TRS)-Digester System, Brown Stock Washer System, Multiple Effect Evaporator System, Condensate Stripper System].

The second sentence of the specific condition merely implements the requirements of 40 CFR 60.284(b)(1) [Subpart BB-Standards of Performance for Kraft Pulp Mills-Monitoring of Emissions and Operations-Incinerators]. 40 CFR 60.284(b)(1) [Subpart BB-Standards of Performance for Kraft Pulp Mills-Monitoring of Emissions and Operations-Incinerators] states, "For any incinerator, a monitoring device which measures and records the combustion temperature at the point of incineration of effluent gases which are emitted from any digester system, brown stock washer system, multiple effect evaporator system, black liquor oxidation system or condensate stripper system where the provisions of 40 CFR 60.283(a)(1)(iii) apply. The monitoring device is to be certified by the manufacturer to be accurate within ± 1 percent of the temperature being measured."(emphasis added) The opening prepositional phrase, "From any incinerator," serves to make it clear that the requirement to monitor the temperature which the gases from any regulated NSPS system are subjected to applies to any incinerator--regardless of whether that incinerator is subject to other regulatory requirements, such as an emission limiting standard. Further, it is clear from the emphasized language that 40 CFR 60.284(b)(1) [Subpart BB-Standards of Performance for Kraft Pulp Mills-Monitoring of Emissions and Operations-Incinerators] does not establish an emission limiting standard for incinerators. 40 CFR 60.284(b)(1) [Subpart BB-Standards of Performance for Kraft Pulp Mills-Monitoring of Emissions and Operations-Incinerators] merely establishes a requirement that can be used to monitor whether gases from affected digester, evaporator, and condensate stripper systems are being subjected to the temperatures required pursuant to 40 CFR 60.283(a)(1)(iii) [Subpart BB-Standards of Performance for Kraft Pulp Mills-Total Reduced Sulfur (TRS)-Digester System, Brown Stock Washer System, Multiple Effect Evaporator System, Condensate Stripper System].

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Explanation Of Specific Condition No. 14

This specific condition is not germane to the issues addressed in this memo and was not addressed in the company's letter of October 4, 1989. But, for the record Specific Condition No. 14 requires Georgia-Pacific to submit certain test results to the Department by June 11, 1989, in order for the Multiple Effect Evaporation System (AC 54-142283) to retain the existing source (non-NSPS) designation. The reference to the Multiple Effect Evaporation System (AC 54-142283) as a non-NSPS system in this memo is not intended to imply that the Department still considers the system to retain the existing source designation. If the required testing was not submitted then the system is subject to the NSPS. However, that designation has no bearing on the conclusions in this memorandum.

cc: Gary Smallridge



State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To: _____	Location: _____
To: _____	Location: _____
To: _____	Location: _____
From: _____	Date: _____

Interoffice Memorandum

TO: Clair Fancy

FROM: Mike Harley *McKell*

DATE: November 30, 1989

SUBJ: Construction Permit Amendments for Georgia-Pacific Corporation Construction Permits: AC 54-142282, AC 54-142283, AC 54-142288, and AC 54-142291

We have proposed to approve most of the amendments requested by the permittee, but the request to delete Specific Condition No. 3 is being denied. Specific Condition No. 3 has been applied in a manner that is consistent with the intent of the authors of the Florida TRS regulations and TRS 111(d) Plan.

The company's request was based on a misinterpretation of the language in Florida's TRS regulations and an apparent misunderstanding of the above referenced permits. Specific Condition No. 2 of the above referenced permits requires the company to incinerate the emissions from the non-NSPS digester system (AC 54-142282), non-NSPS multiple effect evaporator system (AC 54-142283), and the NSPS condensate stripper system (AC 54-142288). The gases from these sources are incinerated in a specially constructed TRS incinerator. Specific Condition No. 3 of the above referenced permits places quantitative restrictions on the TRS emissions from the TRS incinerator (AC 54-142291). The company felt that Specific Condition No. 3 should be deleted because the incinerator treated the TRS emissions from the digesters, evaporators, and condensate stripper systems pursuant to the time and temperature criteria in the federal NSPS regulations.

The company overlooked the fact that the time and temperature criteria in the federal NSPS regulations are applicable to the TRS gases emitted by NSPS digester, evaporator, and condensate stripper systems. The time and temperature criteria are not

TO: Clair Fancy
DATE: November 30, 1989
PAGE: 2

intended to be a TRS emission limiting standard applicable to TRS incinerators. The federal regulations do not contain a specific emission limiting standard for TRS incinerators. But, Florida's TRS regulations do contain a specific TRS emission limiting standard that is applicable to all TRS incinerators.

At the time of TRS Rule adoption, the Department also amended the existing language of its NSPS Rule to make it clear that TRS 111(d) emission limits could be applied to any source for which there was not a specific TRS emission limit in the federal regulations. One stated reason for the amendment [TRS 111(d) Plan-May 25, 1985] was to prevent the avoidance of the TRS emission limiting standard for TRS incinerators by claiming compliance with the temperature and retention time criteria applicable to gases from NSPS digester, multiple effect evaporator, and condensate stripper systems.

The mass TRS emissions from the TRS incinerator are limited pursuant to requirements of the PSD rules that apply to all permits issued by the Department, the reasonable assurance requirements of the rules for issuing or denying permits, and federal guidance. The application of the mass TRS emissions limitation to the TRS Incinerator is entirely consistent with the Department's application of TRS mass emission limitations to the sources that other Florida mills used to incinerate TRS, specifically lime kilns and a power boiler.

cc: Gary Smallridge



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DEC 01 1989

DER-EAQM

Georgia-Pacific Corporation Palatka Operations
Southern Pulp & Paper Division

P.O. Box 919
Palatka, Florida 32078-0919
Telephone (904) 325-2001

November 27, 1989

Mr. Mike Harley
Florida Department of Environmental Regulation
2600 Blainstone Rd.
Tallahassee, Florida 32399-2400

Dear Mike:

The purpose of this letter is to confirm our conversation of November 21, 1989 pertaining to the steam stripper at our Palatka mill. The steam stripper has processed as much as 180 gpm of condensates on a 24 hour average basis and we believe the maximum flow rate is approximately 220 gpm. These water flows are slightly higher than predicted from our original calculations mainly due to dilution and do not contain or release any more methanol than predicted. The original calculations as to how much methanol will be produced are correct.

If you have any questions or if I can be of further assistance, please call me at 904-325-2001.

Sincerely,

Vernon L. Adams
Superintendent of
Environmental Affairs

cc: W. L. Baxter
G. Davis
H. Hirschman
W. R. Wilson



Georgia-Pacific Corporation *Palatka Operations*
Southern Pulp & Paper Division

P.O. Box 919
Palatka, Florida 32078-0919
Telephone (904) 325-2001

November 27, 1989

Mr. Mike Harley
Florida Department of Environmental Regulation
2600 Blairstone Rd.
Tallahassee, Florida 32399-2400

Dear Mike:

The purpose of this letter is to confirm our conversation of November 21, 1989 pertaining to the steam stripper at our Palatka mill. The steam stripper has processed as much as 180 gpm of condensates on a 24 hour average basis and we believe the maximum flow rate is approximately 220 gpm. These water flows are slightly higher than predicted from our original calculations mainly due to dilution and do not contain or release any more methanol than predicted. The original calculations as to how much methanol will be produced are correct.

If you have any questions or if I can be of further assistance, please call me at 904-325-2001.

Sincerely,

Vernon L. Adams
Superintendent of
Environmental Affairs

cc: W. L. Baxter
G. Davis
H. Hirschman
W. R. Wilson

cc: A. Kutyma, NE Dist
CHF/BT

BEST AVAILABLE COPY

GEORGIA-PACIFIC CORPORATION
PALATKA DIVISION
P.O. BOX 919
PALATKA, FLORIDA 32077

904 325-2001

FAX NUMBER: 904 325-6111

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NOV 28 1989

COVER SHEET FOR ALL FAX MAIL

Date: 11-27-89

DER - BAQIM

TO: Mike Harley 1-904-488-6579

FROM: Vernon Adams

Total number pages (including this cover sheet) 2

Comments:



Georgia-Pacific Corporation *Palatka Operations*
Southern Pulp & Paper Division
P.O. Box 919
Palatka, Florida 32078-0919
Telephone (904) 325-2001

RECEIVED

OCT 10 1989

October 4, 1989

Certified Mail

DER-BAQM

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

Re: Georgia-Pacific Construction Permits
AC54-142282, 283, 288, and 289

Dear Mr. Fancy:

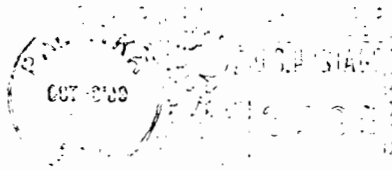
We appreciate very much the consideration granted Messrs Adams, Dutton and Millican in the meeting in your office on August 31, 1989 to discuss the referenced permits. Although, as you correctly stated in the meeting, the referenced permits were accepted, we are extremely grateful that you have agreed to consider the concerns which have emerged in the start up and operation of the TRS collection and incineration systems.

The purpose of this letter is to request that these permits be amended in accordance with the discussions of August 31st. Specifically, we are requesting the following amendments which reference the Specific Conditions in the permits:

Specific Condition 4

Mr. Harley directed our attention to Ch. 17-600(1)(a)1 which provides that incinerators of less than 50 tons per day are subject to no visible emissions (5 percent opacity) and to Ch. 17-600(1)(a)2 "No objectionable odor". Attachment 1 has the calculations which confirm that the daily charging rate is less than 50 tons per day; and therefore, as Mr. Harley suggested, it is appropriate for this incinerator to be regulated by visible emissions rather than being subject to a particulate emission limit.

BEST AVAILABLE COPY



10 11 11

Georgia-Pacific



Palatka Operations
Southern Pulp & Paper Division
P.O. Box 919
Palatka, FL 32078-0919

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

Also, the objectionable odor limit for a TRS incinerator should be imposed at the property boundary. It is apparent that the gasses would have an objectionable odor at the stack exit; therefore, we request that Specific Condition 4 be altered to read:

There shall be no visible emissions (5 percent opacity) except that visible emissions of 20% opacity are allowed for up to three minutes in any one hour. There shall be no objectionable odor from the incinerator beyond the property boundary.

We believe this request is in accordance with Mr. Harley's suggestion and with the agreement developed in the meeting.

Specific Condition 6c

This condition anticipated the methanol from the steam stripper being fed to the incinerator as a liquid. This is not the case as the methanol is fed as a gas straight from the stripper. We are concerned that any requirement to measure the gas flow would impose a safety hazard. We know of no safe method to measure the gas flow while the incinerator is operating. The department's primary concern with this requirement is to assure proper operation of the system. We suggest that the incinerator temperature and SO₂ test from this unit provide this assurance. Therefore, we request that specific condition 6c be deleted.

Specific Condition 7a

As explained above we are unable to measure the gas flow rate from the steam stripper and thus unable to measure the total BTU input to the incinerator. The 8.0 million BTU's/hr. is a reasonable number from design calculations; however, it should not be a permit limit. The appropriate concern of the Department is control of TRS gas to the atmosphere and the direct way to assure this control is by measuring temperature as provided in the rule. Adequate fuel to incinerate all of the TRS gas flow to the incinerator would seem to be the applicable concern for the Department.

Specific Condition 7b

The sulfur content of the natural gas used is a requirement which can and will be met.

Specific Condition 7c

We know of no way to control the sulfur content of the methanol or to measure the flow while operating. Therefore we request that all of Specific Condition 7 be altered to read:

Natural gas with a sulfur content not to exceed 0.1% by weight may be used during periods of startup, shutdown and malfunction providing the maximum hourly quantity does not exceed 7,619 cu. ft. (60 degrees F and 14.7 PSIA)/hour. Natural gas may also be used as a supplemental fuel.

Specific Conditions 3 & 8

Specific Condition 3 imposes a 5PPMV limit on the incinerator, a mass TRS emission limit and an objectionable odor limit. Specific Condition 8 imposes a temperature limit and a minimum time of 0.5 seconds.

Ch. 17-2.600(4)(c)1.a. requires that "Gaseous emissions shall be collected and incinerated in" . . . "a combustion devise meeting the requirements of either Rule 17-2.600(4)(c)6., or Rule 17-2.660, FAC, or;" (emphasis added) meet 17-2.600(4)(c)1.b. if a means other than incineration is used. We are utilizing an incinerator so 17-2.600(4)(c)1.b. clearly does not apply. This leaves us subject to either 17-2.600(4)(c)6 or 17-2.660, not to both. We are subject to the NSPS requirements of 17-2.660 and as such should not be required to meet 17-2.600(4)(c)6. We have supplied you with the names and phone numbers of persons in the industry who operate incinerators and/or strippers. None of them have mass TRS emission limits other than for PSD determination. No other system in Florida permitted to comply with the existing source rule has mass emission limits except for PSD purposes.

Mr. Harley stated that these conditions were based on his understanding of the rule. Since our interpretation of the rule differs from Mr. Harley on this issue, we have asked Mr. Terry Cole to discuss the matter with Ms. Betsy Hewitt to resolve the legal interpretations.

Based on our understanding of the regulations, we respectfully request the following changes:

Delete Specific Condition 3.

Note that the objectionable odor limit has been included in our requested Specific Condition 4.

Leave Specific Condition 8 as written.

Specific Condition 11

This specific condition converts procedures recommended by the manufacturer to enforceable permit conditions. Frequently these procedures are inappropriate for a specific site and can have a negative impact (i.e., excessive system downtime).

Therefore, we request that Specific Condition 11 be changed to delete "recommended by the instrument manufacturer" and require "in accordance with regulations and accepted industry practice".

The discussions of August 31 appear to have developed agreement on this item.

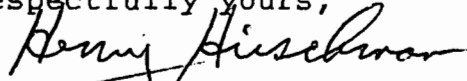
Specific Condition 13

We discussed the requirement for annual compliance testing and seemed to agree that with the continuous monitoring required, annual testing did not appear to be necessary. Therefore, we request that the annual compliance test requirement be changed to a one time test to confirm design performance.

In deference to your request that we not try to rewrite the permit, we have limited our request for changes to 6 specific conditions. One of these, (S.C. 4) is a suggestion from Mr. Harley with which we concur. One other, (S.C. 3) we have asked Mr. Cole to discuss with Ms. Hewitt. The remaining four (S.C. 6, 7, 11, and 13) appear not to be significant environmental issues for the Department. All of them are well within interpretations of the rules which the Department has applied in writing other TRS permits.

The discussion with you and Mr. Harley was constructive and cooperative. We appreciate this and hope that you can approve the request. If you need any additional information please call Mr. Vernon Adams at 904-325-2001.

Respectfully yours,



~~Henry Hirschman~~
General Manager

cc: V. L. Adams
W. L. Baxter
D. Dutton
M. Harley
J. Millican
E. Schmidt

Attachment 1

The construction permit application for the incinerator provides the TRS content of the gasses going to the incinerator (reported as lbs/hr of sulfur) in Attachment B of the application. The table referenced above indicates a 24 hour maximum feed rate of 392 lbs/hr of TRS (reported as sulfur). Multiplying this rate by 24 hours per day provides you with a daily feed rate of 9408 lbs/day of TRS (reported as sulfur).

$$392 \text{ lbs/hr} \times 24 \text{ hrs/day} = 9408 \text{ lbs/day}$$

The major recognized components of TRS are H_2S , CH_3SH , CH_3SCH_3 , and CH_3SSCH_3 . Dimethylsulphide, CH_3SCH_3 , has the highest ratio of molecular weight to sulphur content of these compounds (62 to 32). If you assume that all of the TRS being fed to the incinerator is dimethylsulphide (a worst case assumption) then your daily feed rate would equal the pounds of sulfur per day times the molecular weight of CH_3SCH_3 divided by the molecular weight of sulfur.

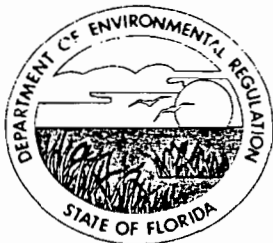
$$9,408 \text{ lbs. S/day} \times 62/32 = 18,228 \text{ lbs. TRS/day as } \text{CH}_3\text{SCH}_3$$

To convert this number to tons/day you divide the pounds per day by 2000.

$$18,228 \text{ lbs/day} / 2000 \text{ lbs/ton} = 9.114 \text{ tons/day}$$

The 9.114 tons/day feed rate is obviously less than the 50 tons/day mentioned in Ch. 17-600(1)(a)1.

File Copy



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

July 28, 1989

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Henry Hirschman
General Manager
Georgia-Pacific Corporation
P. O. Box 919
Palatka, Florida 32078-0919

RE: Construction Permits Numbers AC 54-142282, AC 54-142283, AC 54-142288, AC 54-142291 for the Batch Digester System, the Multiple Effect Evaporation System, the Condensate Stripper System, and the TRS Incinerator, Respectively

The Department has received and reviewed Georgia-Pacific's July 24, 1989, petition for an extension of the expiration dates for the above referenced permits. The Department grants the extension of time with the understanding that none of the compliance dates for the affected sources will be extended by this action. The applicable compliance dates are set forth in Part IX of F.A.C. Chapter 17-2 as well as the above referenced permits.

The following shall be changed and added to the permits:

Expiration Date Change:

From: September 9, 1989
To: March 9, 1990

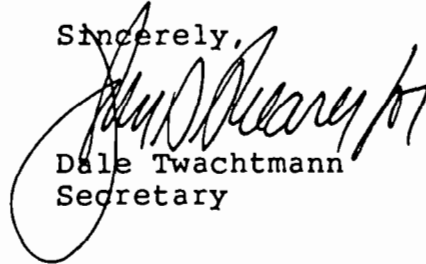
Attachments to be Added:

12. Georgia-Pacific Corporation's petition for an extension of time, dated July 24, 1989, and received July 24, 1989.

Mr. Henry Hirschman
Page Two
July 28, 1989

This letter shall be attached to the construction permits,
AC 54-142282, AC 54-142283, AC 54-142288, and AC 54-142291, and
shall become a part of these permits.

Sincerely,



Dale Twachtmann
Secretary

DT/mdh

cc: W. Stewart, NE District
D. Buff, P.E.
V. Adams
T. Cole

Reading }
Mike Harley } 8-2-89 RAM



State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To: _____	Location: _____
To: _____	Location: _____
To: _____	Location: _____
From: _____	Date: _____

Interoffice Memorandum

TO: Dale Twachtmann

FROM: Steve Smallwood *St. J. J. J.*

RECEIVED

SUBJ: Approval of a Construction Permit Amendment for \$1,000,000 Georgia-Pacific Corporation Construction Permits: AC 54-142282, AC 54-142283, AC 54-142288, AC 54-142291
Office of the Secretary

DATE: July 28, 1989

Attached for your approval and signature is a letter prepared by Central Air Permitting that will amend the construction permits for the batch digester system, the multiple effect evaporation system, the condensate stripper system, and the TRS incinerator by extending the expiration date. The extension will allow the applicant to continue to operate the affected sources while addressing technical problems. The applicant states that none of the compliance dates in the state TRS regulations will be extended by this action.

The facility is located near Palatka, Putnam County, Florida. The amendment is not controversial.

I recommend your approval and signature.

SS/mdh

attachments

RECEIVED

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

JUL 24 1989

DER-BAQM

GEORGIA-PACIFIC CORPORATION,

Petitioner,

vs.

FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION,

Defendant.

CASE NO.:

Permit Nos.: AC 54-142282
AC 54-142283
AC 54-142288
AC 54-142291

Expiration Date: 9/9/89

MOTION FOR EXTENSION OF TIME

Petitioner, GEORGIA-PACIFIC CORPORATION, moves for an extension of time of the expiration date of the Construction Permit issued for the source permits listed above on the following grounds:

1. The Construction Permit expiration date is currently September 9, 1989.
2. All construction has taken place as specified in the TRS rule and no compliance date required by the TRS rule would be extended by the granting of this motion.
3. Petitioner has applied for an operation permit for the above sources, but needs additional time to meet with the Department to discuss unforeseen problems with the construction permit specific conditions which are not requirements of the Department's TRS rule, prior to completing the application for operating permit.

Accordingly, Petitioner requests an extension of time of six (6) months of the permit expiration date of the Construction Permit for the source permits listed above.

DIVISION OF AIR RESOURCE MANAGEMENT

(For Internal Use Only)

ROUTING AND TRANSMITTAL SLIP		ACTION NO
		ACTION DUE DATE
1. TO: (NAME, OFFICE, LOCATION)		Initial
Bill		Date
2.		Initial
Chloe CDS		Date
3.		Initial
Patty (file)		Date
4.		Initial
		Date
REMARKS:		INFORMATION
<p style="font-size: 1.2em; margin-left: 40px;"><i>Mike has a copy</i></p>		<input type="checkbox"/> Review & Return
		<input type="checkbox"/> Review & File
		<input type="checkbox"/> Initial & Forward
		DISPOSITION
		<input type="checkbox"/> Review & Respond
		<input type="checkbox"/> Prepare Response
		<input type="checkbox"/> For My Signature
		<input type="checkbox"/> For Your Signature
		<input type="checkbox"/> Let's Discuss
		<input type="checkbox"/> Set Up Meeting
		<input type="checkbox"/> Investigate & Report
		<input type="checkbox"/> Initial & Forward
		<input type="checkbox"/> Distribute
		<input type="checkbox"/> Concurrence
		<input type="checkbox"/> For Processing
<input type="checkbox"/> Initial & Return		
FROM:		DATE
<i>Patty</i>		<i>7-25</i>
		PHONE

Petitioner hereby certifies that it has consulted with Mike Harley of the Division of Air Quality Management and Gary Smallridge, Assistant General Counsel, who neither object nor concur with the extension.

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished by hand-delivery to MIKE HARLEY, Department of Environmental Regulation, Division of Air Quality, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, GARY SMALLRIDGE, Assistant General Counsel, Department of Environmental Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32300-2400 and by U.S. Mail to ERNIE FREY, District Manager, Department of Environmental Regulation, 3426 Bills Road, Jacksonville, Florida 32207 on this 24 day of July, 1989.

OERTEL, HOFFMAN, FERNANDEZ
& COLE, P.A.
2700 Blair Stone Road
Suite C
Post Office Box 6507
Tallahassee, Fl 32314-6507
(904) 877-0099

Terry Cole
TERRY COLE

Attorneys for Petitioner
GEORGIA-PACIFIC CORPORATION

P 938 762 638

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

PS Form 3800, June 1985

Sent to Henry Hirschman, Gen. Mgr.	
Street and No. Georgia-Pacific Corp.	
P.O. Box 919	
City, State, and ZIP Code Palatka, FL 32078-0919	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date mailed: 8/2/89 AC 54-142282, -142283, -142288 & -142291	

<p>● SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4. Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.</p> <p>1. <input checked="" type="checkbox"/> Show to whom delivered, date, and addressee's address. (Extra charge) 2. <input type="checkbox"/> Restricted Delivery (Extra charge)</p>	
<p>3. Article Addressed to: Henry Hirschman, Gen. Mgr. Georgia-Pacific Corp. P.O. Box 919 Palatka, FL 32078-0919</p>	<p>4. Article Number P 938 762 638</p> <p>Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise</p> <p>Always obtain signature of addressee or agent and DATE DELIVERED.</p>
<p>5. Signature -- Address X <i>Georgia Pacific Corp</i></p>	<p>8. Addressee's Address (ONLY if requested and fee paid)</p>
<p>6. Signature / Agent X <i>A. J. Brown</i></p>	
<p>7. Date of Delivery <i>8/3/89</i></p>	

UNITED STATES POSTAL SERVICE

OFFICIAL BUSINESS

SENDER INSTRUCTIONS

Print your name, address and ZIP Code in the space below.

- Complete items 1, 2, 3, and 4 on the reverse.
- Attach to front of article if space permits, otherwise affix to back of article.
- Endorse article "Return Receipt Requested" adjacent to number.

RETURN
TO



Print Sender's name, address, and ZIP Code in the space below.
Department of Environmental Regulation
Division of Air Resources Management
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

attn: Patty Adams



RECEIVED
AUG 7 1989
DER-RM



PENALTY FOR PRIVATE
USE, \$300

P 702 177 454

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

PS Form 3800, June 1985

Sent to Mr. Henry Hirschman, GA-Pacific	
Street and No. P.O. Box 919	
P.O., State and ZIP Code Palatka, FL 32078-0919	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date Mailed: 7-22-88 Permit: AC 54-142282, -83, -88, -91	

● **SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. Return to Whom Delivered ^{↑(Extra Charge)↑} and addressee's address. 2. Restricted Delivery ^{↑(Extra Charge)↑}

3 Article Addressed to: Mr. Henry Hirschman General Manager Georgia-Pacific Corp. Post Office Box 919 Palatka, FL 32078-0919	4. Article Number P 702 177 454 Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail Always obtain signature of addressee or agent and DATE DELIVERED.
5 Signature - Addressee X <i>Georgia Pacific Corp</i>	8. Addressee's Address (ONLY if requested and fee paid)
6 Signature - Agent X <i>D. J. Brown</i>	
7 Date of Delivery <i>7/25/88</i>	

UNITED STATES POSTAL SERVICE
OFFICIAL BUSINESS

SENDER INSTRUCTIONS

Print your name, address, and ZIP Code in the space below.

- Complete items 1, 2, 3, and 4 on the reverse.
- Attach to front of article if space permits, otherwise affix to back of article.
- Endorse article "Return Receipt Requested" adjacent to number.

RECEIVED

JUL 27 1988

DER - BAQM

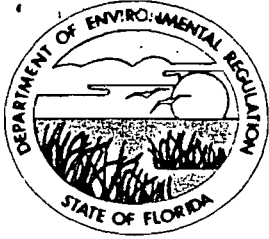


PENALTY FOR PRIVATE
USE, \$300

RETURN
TO 

Print Sender's name, address, and ZIP Code in the space below.

Dept. of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400
Attn: Patty Acams



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

July 18, 1988

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Henry Hirschman, General Manager
Georgia-Pacific Corporation
Post Office Box 919
Palatka, Florida 32078-0919

Dear Mr. Hirschman:

Re: Amendments to Construction Permits Nos. AC 54-142282, -142283, -142288, and -142291--Specifically to Construction Permit No. AC 54-142282 for the Digester System.

The Department received Mr. Adams' request for an amendment to the above referenced construction permits on June 13, 1988. Pursuant to your request the following changes have been made:

Specific Condition No. 6.a.:

From: The maximum operation rate of the digester system (AC 54-144282) shall exceed neither 235,970 lbs of air dried unbleached pulp (ADUP)/hour nor a 24-hr average of 154,167 lbs of ADUP/hr. The maximum 24-hr average operation rate is based on the nominal 24-hour average input of 291,417 lbs of dry wood chips/hour, 566,501 lbs of white liquor/hr, and 167,078 lbs of black liquor/hour; and the output of 238,958 lbs of dry black liquor solids (BLS)/hr and 932 lbs of crude sulfate turpentine/hour.

To: For testing purposes and NSPS applicability purposes the maximum production rate of the digester system (AC 54-142282) will be 118 tons of air dried unbleached pulp (ADUP)/hr. Test for compliance will be performed with the control device (incinerator) operating and with the digester system operating as near the maximum production rate as possible, but in no case shall the operating rate of the digesters be less than 85% of the maximum operation rate when testing. For PSD purposes the maximum production rate for the digester system (AC 54-142282) will be 1850 tons of ADUP/day based on a nominal utilization rate of 291,417 pounds dry wood chips/hour and 566,501 pounds of white liquor/hour and 167,078 pounds of black liquor/hour.

Mr. Henry Hirschman
Page Two
July 18, 1988

Attachments:

- Add: 10. Mr. Vernon Adams' letter to C. H. Fancy received June 13, 1988.
11. Amendments to construction permits Nos. AC 54-142282, -142283, -142288, and -142291--specifically to construction permit No. AC 54-142282 for the digester system--dated July 18, 1988.

This letter must be attached to the construction permits--Nos. AC 54-142282, -142283, -142288, and -142291--and is a part of the permits.

Sincerely,

A handwritten signature in cursive script that reads "Dale Twachtmann". The signature is written in black ink and is positioned above the typed name and title.

Dale Twachtmann
Secretary

DT/plm

cc: William Stewart, NE District
David Buff, P.E., KBN
Vernon Adams, Georgia-Pacific



State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To: _____	Location: _____
To: _____	Location: _____
To: _____	Location: _____
From: _____	Date: _____

Interoffice Memorandum

TO: Dale Twachtmann
FROM: Steve Smallwood *WES*
SUBJ: Approval of an Amendment to Georgia-Pacific TRS
State Construction Permit Numbers:
AC 54-142282, -142283, -142288, and -142291
DATE: July 18, 1988

Attached for your approval and signature is an amendment prepared by Central Air Permitting that clarifies the operation rates to be applied to Georgia-Pacific's digester system. This is a noncontroversial amendment that was requested by the company. The facility is located in Palatka, Putnam County, Florida.

I recommend your approval and signature.

SS/aqm/mh

attachments



Georgia-Pacific Corporation

PM
6-10-88
Palatka, FL

File Copy

Palatka Operations
Southern Pulp & Paper Division

P.O. Box 919
Palatka, Florida 32078-0919
Telephone (904) 325-2001

June 10, 1988

Mr. Clair H. Fancy
Deputy Chief
Bureau of Air Quality Management
Florida Department of
Environmental Regulation
2600 Blair Stone Rd.
Tallahassee, Florida 32399-2400

RECEIVED

JUN 13 1988

DER-BAQM

Dear Mr. Fancy:

Bruce Mitchell indicated by phone that the Department was willing to modify specific condition number 6 of construction permits AC 54-142282, AC 54-142283, AC 54-142288, AC 54-142291 to correspond with an agreement reached between the Department and the paper industry. Please modify these permits to reflect the agreement. Specific language for the requested change is detailed below.

Change Specific Condition 6 to read:

6. Operating Rates

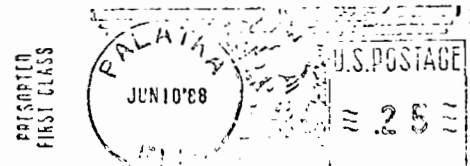
a. For PSD purposes the maximum production for the digester system will be 1850 TPDADP (tons per day of air dried pulp based on a nominal utilization rate of 291,417 pounds per hour wood chips (dry) and 566,501 pounds per hour of white liquor, and 167,078 pounds per hour of black liquor).

For testing purposes and NSPS applicability purposes the maximum production rate of the digester system will be 118 TPHADP (tons per hour of air dried pulp). Test for compliance will be performed with the control devise (incinerator) operating and with the digester system operating as near the maximum production rate as possible, but in no case shall the operating rate of the digesters be less than 85% of the maximum operation rate when testing.

Georgia-Pacific



P. O. Box 919
Palatka, Florida 32078-0919



RECEIVED

JUN 13 1988

DER-BAQM

Mr. Clair H. Fancy
Deputy Chief
Bureau of Air Quality Management
Florida Department of
Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400



6 b. and 6 c. remain the same.

We appreciate the Department's cooperation in this matter. If I can be of assistance, please call.

Sincerely,



Vernon L. Adams
Supervisor of
Environmental Affairs

cc: W. L. Baxter

D. Buff

H. Hirschman

A. Hodges

~~B. Mitchell~~ Mike Harley

E. J. Schmidt

CHF/BJ



Georgia-Pacific Corporation *Palatka Operations*
Southern Pulp & Paper Division
P.O. Box 919
Palatka, Florida 32078-0919
Telephone (904) 325-2001

RECEIVED

April 11, 1988

APR 13 1988

DER - BAQM

Mr. Clair H. Fancy
Deputy Chief
Bureau of Air Quality Management
Florida Department of
Environmental Regulation
2600 Blair Stone Rd.
Tallahassee, Florida 32399-2400

Dear Mr. Fancy:

Please find enclosed the certification of public notice relating to the construction permits for Georgia-Pacific's TRS control project.

If I can be of further service please call me.

Sincerely,

Vernon L. Adams
Supervisor of
Environmental Affairs

cc: W. L. Baxter
A. Hodges
H. Hirschman
M. Harley
E. J. Schmidt

DM
4.12.88
Palatka, FL

file copy

STATE OF FLORIDA }
County of Putnam } ss:

Personally appeared before me, a Notary Public for the State of Florida at Large, ... Joyce Guthrie..... who deposes and says that she is ... Business Office Manager..... of The Palatka Daily News, a daily newspaper printed in the English Language and of general circulation, published in the City of Palatka, in said County and State; and that the attached order, notice, publication and/or advertisement of ... Notice of Intent..... To construct a No. 3 digesting accumulator.....

..... was published in said newspaper PALATKA DAILY NEWS..... for a period of One Insertion..... consecutively, Beginning ... April 5, 1988..... and ending ... April 5, 1988..... said publication being made on the following dates: April 5, 1988.....

And deponent further says that The Palatka Daily News has been continuously published as a daily newspaper, and has been entered as second class mail matter at the postoffice at the City of Palatka, Putnam County, Florida, each for a period of more than one year next preceding the date of the first publication of the above described order, notice, publication and/or advertisement.

Subscribed and sworn to before me this

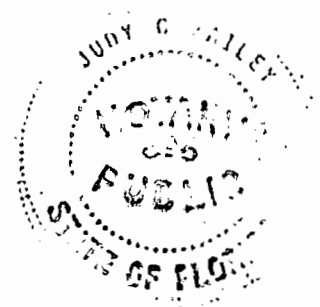
5th day of April A. D. 1988

Judy C. Bailey
NOTARY PUBLIC STATE OF FLORIDA
MY COMMISSION EXP. MAY 3, 1991
BONDED THRU GENERAL INS. UND.

Joyce Guthrie

No. #20612

RECEIVED
APR 13 1988
DER - BAQM



PUBLIC NOTICE
State of Florida
Department of
Environmental Regulation
Notice of Intent
The Department of Environmental Regulation hereby gives notice of its intent to issue permits to Georgia-Pacific Corporation to construct a No. 3 digesting accumulator and improve the turpentine condenser system for the batch digester system; construct a pre-evaporator stage for the multiple effect evaporation system; construct a condensate stripper system; construct a total reduced sulfur (TRS) incinerator; and construct a noncondensable gas handling system to convey emissions to the TRS incinerator. The action is part of a plan to comply with the TRS Rules adopted on March 21, 1985. The project will be located at the Georgia-Pacific Corporation kraft pulp mill near Palatka, Putnam County, Florida. The Department is issuing this intent to issue for the reasons stated in the Technical Evaluation and Preliminary Determination.
Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative determination (hearing) in accordance with Section 120.57, Florida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Failure to file a petition within this time period constitutes a waiver of any right such person has to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

Georgia-Pacific



P. O. Box 919
Palatka, Florida 32078-0919

REGISTERED
FIRST CLASS



U.S. POSTAGE

2 0 0 0

Mr. Clair H. Fancy
Deputy Chief
Bureau of Air Quality Management
Florida Department of
Environmental Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400



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 proposed agency action. Therefore, persons who may not wish to file a petition may wish to intervene in the proceeding. A petition for intervention must be filed pursuant to Rule 28-5.207, Florida Administrative Code, at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of Administrative Hearings, Department of Administration, 2009 Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

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:
Dept. of
Environmental Regulation
Bureau of
Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dept. of
Environmental Regulation
Northeast District Office
3426 Billis Road
Jacksonville, Florida 32207

Any person may send written comments on the proposed action to Mr. Bill Thomas at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

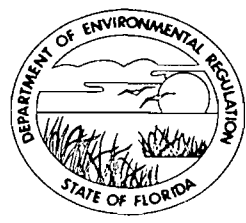
Apr. 5, 1988

20612

file

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ
GOVERNOR
DALE TWACHTMANN
SECRETARY

March 24, 1988

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Henry Hirschman
General Manager
Georgia-Pacific Corporation
P. O. Box 919
Palatka, Florida 32078-0919

Dear Mr. Hirschman:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permits for Georgia-Pacific Corporation to construct a new No. 3 digesting (blow heat) accumulator and improve the turpentine condenser system for the digester system; construct a new pre-evaporator stage for the multiple effect evaporation system; construct a new condensate stripper system; construct a TRS incinerator; and, construct a noncondensable gas handling system to convey emissions to the TRS incinerator.

Please submit, in writing, any comments which you wish to have considered concerning the Department's proposed action to Mr. Bill Thomas of the Bureau of Air Quality Management.

Sincerely,

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

CHF/ks

Attachments

cc: William Stewart, NE District
David Buff, P.E.
Vernon Adams

P 274 010 443

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

★ U.S.G.P.O. 1985-480-794

PS Form 3800, June 1985

Mr. Henry Hirschman, G.M.	
Georgia-Pacific Corp.	
P.O. Box 919	
P.O., State and ZIP Code Palatka, FL 32078-0919	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date Mailed: 03-23-88	
Permits: AC 54-142282, -283, -238, -291	

● **SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. Show to whom delivered, date, and addressee's address. 2. Restricted Delivery.

3. Article Addressed to:

Mr. Henry Hirschman, General Mgr.
Georgia-Pacific Corp.
P.O. Box 919
Palatka, FL 32078-0919

4. Article Number

P 274 010 443

Type of Service:

- Registered Insured
 Certified COD
 Express Mail

Always obtain signature of addressee or agent and **DATE DELIVERED**.

5. Signature - Addressee

X *Georgia Pacific Corp*

6. Signature - Agent

X *S. Brown*

7. Date of Delivery

3/24/88

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

UNITED STATES POSTAL SERVICE
OFFICIAL BUSINESS

SENDER INSTRUCTIONS

Print your name, address, and ZIP Code in the space below.

- Complete items 1, 2, 3, and 4 on the reverse.
- Attach to front of article if space permits, otherwise affix to back of article.
- Endorse article "Return Receipt Requested" adjacent to number.



PENALTY FOR PRIVATE
USE, \$300

RECEIVED

RETURN
TO

MAR 28 1988

DER - BAOM

ATTN: M. JAMES

Print Sender's name, address, and ZIP Code in the space below.
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400



BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Applications for Permits by:

Georgia-Pacific Corporation	DER File Nos. AC 54-142282
P. O. Box 919	AC 54-142283
Palatka, Florida 32077-0919	AC 54-142288
	AC 54-142291

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its intent to issue permits (copy attached) for the proposed project as detailed in the applications specified above. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Georgia-Pacific Corporation applied on November 20, 1987, to the Department of Environmental Regulation for permits to construct a No. 3 digesting accumulator and improve the turpentine condenser system for the batch digester system; construct a pre-evaporator stage for the multiple effect evaporation system; construct a condensate stripper system; construct a total reduced sulfur (TRS) incinerator; and construct a noncondensable gas handling system to convey emissions to the TRS incinerator. The action is part of a plan to comply with the TRS Rules adopted on March 21, 1985. The project will be located at the Georgia-Pacific Corporation kraft pulp mill near Palatka, Putnam County, Florida.

The Department has permitting jurisdiction under Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 and 17-4. The project is not exempt from permitting procedures. The Department has determined that an air construction permit was needed for the proposed work.

Pursuant to Section 403.815, F.S. and DER Rule 17-103.150, FAC, you (the applicant) are required to publish at your own expense the enclosed Notice of Proposed Agency Action on permit applications. The notice must be published one time only in a section of a major local newspaper of general circulation in the county in which the project is located and within thirty (30) days from receipt of this intent. Proof of publication must be provided to the Department within seven days of publication of the notice. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permits.

The Department will issue the permits with the attached conditions unless petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S. A person whose substantial interests are affected by the

Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. Petitions must comply with the requirement of Florida Administrative Code Rules 17-103.155 and 28-5.201 (copy enclosed) and be filed with (received by) the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant must be filed within fourteen (14) days of receipt of this intent. Petitions filed by other persons must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of this intent, whichever first occurs. 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, concerning the subject permit application. Petitions which are not filed in accordance with the above provisions will be dismissed.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

Copies furnished to:

William Stewart, NE District
David Buff, P.E.
Vernon Adams

RULES OF THE ADMINISTRATIVE COMMISSION
MODEL RULES OF PROCEDURE
CHAPTER 28-5
DECISIONS DETERMINING SUBSTANTIAL INTERESTS

28-5.15 Requests for Formal and Informal Proceedings

- (1) Requests for proceedings shall be made by petition to the agency involved. Each petition shall be printed, typewritten or otherwise duplicated in legible form on white paper of standard legal size. Unless printed, the impression shall be on one side of the paper only and lines shall be double spaced and indented.
- (2) All petitions filed under these rules should contain:
 - (a) The name and address of each agency affected and each agency's file or identification number, if known;
 - (b) The name and address of the petitioner or petitioners;
 - (c) All disputed issues of material fact. If there are none, the petition must so indicate;
 - (d) A concise statement of the ultimate facts alleged, and the rules, regulations and constitutional provisions which entitle the petitioner to relief;
 - (e) A statement summarizing any informal action taken to resolve the issues, and the results of that action;
 - (f) A demand for the relief to which the petitioner deems himself entitled; and
 - (g) Such other information which the petitioner contends is material.

State of Florida
Department of Environmental Regulation
Notice of Intent

The Department of Environmental Regulation hereby gives notice of its intent to issue permits to Georgia-Pacific Corporation to construct a No. 3 digesting accumulator and improve the turpentine condenser system for the batch digester system; construct a pre-evaporator stage for the multiple effect evaporation system; construct a condensate stripper system; construct a total reduced sulfur (TRS) incinerator; and construct a noncondensable gas handling system to convey emissions to the TRS incinerator. The action is part of a plan to comply with the TRS Rules adopted on March 21, 1985. The project will be located at the Georgia-Pacific Corporation kraft pulp mill near Palatka, Putnam County, Florida. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative determination (hearing) in accordance with Section 120.57, Florida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Failure to file a petition within this time period constitutes a waiver of any right such person has to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

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 proposed agency action. Therefore, persons who may not wish to file a petition may wish to intervene in the proceeding. A petition for intervention must be filed pursuant to Rule 28-5.207, Florida Administrative Code, at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of Administrative Hearings, Department of Administration, 2009 Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

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:

Dept. of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dept. of Environmental Regulation
Northeast District Office
3426 Bills Road
Jacksonville, Florida 32207

Any person may send written comments on the proposed action to Mr. Bill Thomas at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF INTENT TO ISSUE and all copies were mailed before the close of business on 3-23-88.

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.

Martha Wise 3-23-88
Clerk Date

Technical Evaluation
and
Preliminary Determination

Georgia-Pacific Corporation
Putnam County

Digester System
Permit No. AC 54-142282

Multiple Effect Evaporation System
Permit No. AC 54-142283

Condensate Stripper System
Permit No. AC 54-142288

TRS Incinerator
Permit No. AC 54-142291

Florida Department of Environmental Regulation
Bureau of Air Quality Management
Central Air Permitting

March 17, 1988

I. Project Description

A. Applicant

Georgia-Pacific Corporation
Post Office Box 919
Palatka, Florida 32078-0919

B. Project and Location

The applicant is proposing to construct a new No. 3 digesting (blow heat) accumulator to receive gases from the 13 batch digesters and 3 digester blow tanks presently installed at the mill. This digesting (blow heat) accumulator will replace the existing No. 1 and No. 2 digesting (blow heat) accumulators. The proposal also includes changes to the turpentine condenser system associated with the batch digester system. The applicant also proposes to construct a pre-evaporator (blow heat evaporator) stage that will precede the presently installed Nos. 1, 2, 3, and 4 multiple effect evaporator systems which are followed by a concentrator stage. The applicant's proposed project includes the construction of a condensate stripper subject to the requirements of 40 CFR 60. The project includes the proposed construction of a TRS incinerator. The proposed project also includes the construction of a noncondensable gas (NCG) handling system to capture all emissions of TRS and other air pollutants emitted by the referenced sources (excluding the TRS incinerator) and convey the air pollutants to the TRS incinerator.

The Standard Industrial Classification Code (SIC) is Major Group 26, Industry 2621, Paper Mills. The Source Classification Codes (SCC) are 3-07-001, digester relief and blow tank, for the digester system (including the proposed No. 3 digesting (blow heat) accumulator) and 3-07-001-07, turpentine condenser, also for the digester system; 3-07-001-03, multi-effect evaporator, for the multiple effect evaporation system (which includes the Nos. 1, 2, 3, and 4 multiple effect evaporator sets plus the concentrator stage and the proposed pre-evaporator stage); 3-07-001-99, other not classified, for the proposed condensate stripper system; and, 3-07-001-99, other not classified, for the proposed TRS incinerator.

The projects are to be located at the kraft pulp mill owned by Georgia-Pacific Corporation, which is adjacent to State Road 216 near Palatka, Putnam County, Florida. The universal transverse mercator (UTM) coordinates of these projects are Zone 17, 434.0 km east, and 3283.4 km north.

The applications were received on November 20, 1987, and the Department decided to issue the proposed permits on January 27, 1988.

C. Project Description and Controls

The kraft pulping process utilizes large reactor vessels called digesters. These vessels react wood chips with chemicals under conditions of elevated temperature and pressure to remove lignin. The lignin binds the cellulose fibers in the wood chips together. During the reaction of softwoods (i.e., southern pine) gases containing steam, TRS, and turpentine are vented to condensers. These condensers remove water, turpentine, and a small fraction of TRS from the gas stream. If hardwood is cooked the gases are vented to the atmosphere because they contain only a small amount of turpentine. Upon completion of the reaction, the pressure in the reactors is suddenly relieved, forcing the pulp and cooking chemicals into a blow tank. The gases are vented from the blow tank to a large direct contact condenser.

This condenser is called a digesting or blow heat accumulator. This condenser recovers heat from the hot gases and reduces the volume of these gases. These gases which result from the sudden release of pressure in the reactor contain steam, TRS, and methanol. A portion of these constituents condense in the accumulator and are mixed with the hotwater. The collected TRS is later released to the atmosphere when the hotwater is used in the process or sent to the water treatment system. The condensed methanol increases the pollution load to the water treatment system.

The economics of the kraft pulping process are heavily dependent upon the recovery and reuse of the reaction chemicals. The spent chemical solution is separated from the pulp and piped to the chemical recovery system. The spent chemical solution contains 14-17 percent solids and consists of water, reaction chemicals, organic material, and dissolved TRS gases. This solution is known as black liquor. The heat content of the organic materials are recovered as steam in a recovery furnace and the reaction chemicals are recovered as a smelt in the base of the recovery furnace. In order to accomplish this the solids content of the black liquor must be elevated to about 65 percent.

The solids content of the black liquor is increased by evaporating the water in efficient vacuum evaporator sets known as multiple effect evaporator systems. Concentration of the black liquor to 50% solids is usually accomplished under conditions of natural circulation. Elevation of the black liquor solids content to about 65% is then accomplished in an additional stage under conditions of forced flow. The gases released during this process contain TRS.

On March 21, 1985, the Department adopted regulations requiring the pulp and paper industry to control odorous emissions of TRS from digester systems, multiple effect evaporator systems, and other sources. These regulations were

adopted pursuant to the requirements of Section 111(d) of the Clean Air Act and 40 CFR 60 Subpart B. The applicant's project is part of a program to comply with these regulations.

The applicant proposes to control TRS emissions from the presently installed digester system consisting of 13 batch digesters, 3 blow tanks, 2 blow heat accumulators, and a turpentine condenser system by collecting and incinerating all vent gases. The presently installed No. 1 and 2 blow heat accumulators will be replaced with a single No. 3 blow heat accumulator. The applicant believes the new blow heat accumulator will be more efficient than those it is to replace. The gases from the new blow heat accumulator will be vented to a proposed noncondensable gas (NCG) handling system. The applicant also proposes to improve the turpentine condenser system and vent the gases to the proposed NCG system. When hardwood is processed, the applicant proposes to vent relief gases from the digester system to the proposed NCG system via the blow tanks and proposed No. 3 blow heat accumulator.

The applicant proposes to control emissions from the presently installed multiple effect evaporation system (consisting of 4 sets of multiple effect evaporators, a concentrator, and 4 hotwells) by collecting and incinerating all vent gases. The applicant indicates that the gases from each of the multiple effect evaporator sets are vented to an individual hotwell and the gases from the concentrator are vented to the hotwell for the No. 4 multiple effect evaporator set. The gaseous emissions from each of the hotwells will be vented to the proposed NCG system.

The project includes the construction of a proposed 2 body pre-evaporator stage for the multiple effect evaporation system. The additional stage of evaporation will be equipped with an individual hotwell. This additional stage of evaporation will serve two useful purposes. First the proposed pre-evaporator stage will act as a heat exchanger to cool the water in the proposed blow heat accumulator from 210°F to 160°F. According to the literature published by the U.S. EPA, the maintenance of a large temperature differential in the blow heat accumulator will reduce the venting of emissions to the atmosphere. Second, it appears that this system may reduce the amount of contaminated condensate that could release TRS emissions to the atmosphere. Third, it appears that less energy may be required to elevate the black liquor solids concentration from 14 to 17 percent. The applicant proposes to vent the emissions from this stage of evaporation to the NCG system via the new hotwell. The applicant further indicates that the proposed pre-evaporator stage will neither result in increased emissions from nor increased operation rates of the evaporation system as a whole.

The project includes the construction of a steam condensate stripper that will be subject to the applicable provisions of 40 CFR 60, Subpart BB. The proposed condensate stripper will strip TRS compounds and methanol from condensates generated in the proposed pre-evaporator, the turpentine system, and other miscellaneous sources in the mill. Based on information supplied by the applicant and published by the U.S. EPA--the proposed condensate stripper may result in at least three environmental benefits. First, since the condensate generated in the pre-evaporator stage will result from the flashing of hotwater contained in the No. 3 blow heat accumulator--condensate stripping should ensure that additional dissolved TRS gases are not emitted elsewhere. Presently, these gases are probably emitted to the air. Second, the stripping of TRS compounds from condensates generated in the turpentine condenser will ensure that dissolved TRS gases are not re-emitted at other places in the mill. Since these condensates are either used in the mill or sent to the water treatment system--there is a strong probability that the dissolved TRS gases are emitted to the air. Third, the recovery of methanol reduces the BOD load to the water treatment system and provides a supply of very low sulfur fuel for the proposed TRS incinerator. This reduces the quantity of sulfur that may be released to the atmosphere compared to that which may result if a liquid fossil fuel were required for the proposed TRS incinerator. These benefits are integral to the present goals and policies of the TRS regulations in achieving the maximum federally enforceable long-term reductions in TRS emissions. The gases from the proposed condensate stripper will be vented to the proposed NCG system which will convey them to the proposed TRS incinerator.

The proposed TRS incinerator will receive the collected vent gases from the proposed NCG system. The applicant has guaranteed that the proposed TRS incinerator will subject the gases from the proposed NCG system to a minimum temperature of 1200°F for at least 0.5 second. The applicant has stated that the TRS emissions from the proposed incinerator will not exceed 5 ppmv on a dry basis at standard conditions corrected to 10% oxygen as a 12-hour average. The maximum mass TRS emissions will be 0.12 lb/hr and 0.53 ton/year. And, the maximum SO₂ emissions will be 1200 lbs/hr, a daily average of 784 lbs/hr, and 3434 tons/year. The proposed TRS incinerator will utilize primarily methanol and/or natural gas. The natural gas is to be used to supplement the methanol as well as for purposes of startup and shutdown. The sulfur content of the natural gas is to be no greater than 0.1% by weight and the sulfur content of the methanol is to be below the minimum detectable limits of applicable sampling methods. The proposed TRS incinerator is to be equipped with a 250 ft natural draft stack.

The proposed NCG system is being designed to convey all emissions from affected sources to the TRS incinerator without

venting--except in emergency situations. This conclusion is drawn from the applicant's statements.

II. Rule Applicability

Georgia-Pacific Corporation's (G-P) Palatka mill is a major facility pursuant to Florida Administrative Code (FAC) Rule 17-2.100(111)[Definitions-Major Facility]. The facility is a kraft pulp mill which is one of the 28 major facility categories listed in Table 500-1 of FAC Rule 17-2.500 [Prevention of Significant Deterioration].

Based on the applicant's statements, the Department does not believe that the proposed project is subject to the preconstruction review requirements of FAC Rule 17-2.500(5)[PSD-Preconstruction Review Requirements]. The Department has relied upon the applicant's presentation that the elements of the proposed project and the emission changes are necessary to comply with the TRS regulations adopted on March 21, 1985. Pursuant to FAC Rules 17-2.500 [PSD] and 17-2.520 [Sources not Subject to PSD or Nonattainment Requirements], the applicant was required to demonstrate that the proposed project will not cause or contribute to a violation of ambient air quality standards and/or PSD increments. Please note that emission changes strictly associated with regulatory compliance do affect PSD increments.

Pursuant to the definitions in FAC Rule 17-2.100 [Definitions] the proposed project includes the following permitted sources. The digester system, pursuant to FAC Rule 17-2.100(59)[Definitions-Digester System], includes each of the 13 individual digester systems as a source. The turpentine condenser system, the blow tanks, proposed No. 3 blow heat accumulator, etc., are considered components of each associated source. The multiple effect evaporator system, pursuant to FAC Rule 17-2.100(120)[Definitions-Multiple Effect Evaporator System] includes each of the 4 individual multiple effect evaporator systems as a source. The proposed pre-evaporator stage, concentrator, and hotwells are considered components of each associated source. The proposed condensate stripper system is a source pursuant to FAC Rule 17-2.100(49)[Definitions-Condensate Stripper System]. The proposed TRS incinerator is a source pursuant to FAC Rule 17-2.100(90)[Definitions-Incinerator] and a control device pursuant to FAC Rule 17-2.100(10)[Definitions-Air Pollution Control Equipment].

Based on the applicant's information, the following emission limiting standards are applicable. The TRS emissions from the digester system and multiple effect evaporation system are subject to the incineration provisions of FAC Rule 17-2.600(4)(c)1.a.[Specific Source Emission Limiting Standards-Kraft (Sulfate) Pulp Mills-TRS-Digester Systems, etc.]. The TRS emissions from the proposed condensate stripper system are sub-

ject to the incineration provisions of 40 CFR 60.283(a)(1)(iii) [Federal NSPS-Kraft Pulp Mills]. The TRS emissions from the proposed TRS incinerator are subject to the provisions of FAC Rule 17-2.600(4)(c)6. [Specific Source Emission Limiting Standards-Kraft (Sulfate) Pulp Mills-TRS-Other Combustion Devices]. The noncondensable gases vented to the proposed TRS incinerator shall be subjected to a temperature of 1200°F for 0.5 second and the emissions of TRS after incineration shall not exceed 5 ppmv on a dry basis corrected to standard conditions at 10% oxygen as a 12-hour average. Since the applicant indicates that the input to the proposed TRS incinerator is greater than 50 tons/day, the particulate emission and objectionable odor requirements of FAC Rule 17-2.600(1)(c) [Specific Source Emission Limiting Standards-Incinerators-New] are also applicable. Particulate emissions from the proposed TRS incinerator shall not exceed 0.08 grain/dry standard cubic foot corrected to 50% excess air and no objectionable odor shall be emitted from the proposed TRS incinerator.

The applicant's proposed changes to the multiple effect evaporation system would normally be considered a modification subject to federal new source requirements. Based on emission estimates, the applicant has made a reasonable case that no mass emission increase will result. The Department will initially consider the system subject to state existing source rules. But, the applicant will be required to provide TRS emission test data representative of the entire evaporation system operating at 90 to 100% of the permitted capacity in order to retain that status. The test data will include the total TRS mass emissions without incineration prior to and after installation of the pre-evaporator stage. The emission test data will establish the status of the system as existing or NSPS.

Pursuant to FAC Rules 17-2.500(1) [PSD-General Prohibitions], 17-2.520 [Sources not Subject to PSD or Nonattainment Requirements], and 17-4.070(4) [Standards for Issuing or Denying Permits] the Department has placed limitations on the total mass emissions from the TRS incinerator and the operation rates of the affected sources. The limitations on operation rates will also be used as one basis to establish proper operation and maintenance pursuant to FAC Rule 17-2.710(4) [Continuous Monitoring Requirements-Quarterly Reporting Requirements]. Most limitations were based on a maximum hourly and a 24-hour average because the applicant indicated that physical and operational factors prevented continuous operation at maximum rates. An example of an operational factor where an hourly emission rate can be increased without an increase in operation rate is the multiple effect evaporation system. The applicant explained via telephone that startup, shutdown, and liquor carryover can increase emissions on a short term basis. The operation rate can in fact drop below maximum. If the liquor carryover occurs the system is taken out of service and the problem corrected. These values are

consistent with those used in the ambient air quality modeling and increment consumption analysis.

It is usually the practice of the Department to assign individual mass emission limitations to each regulated source. In this case, an aggregate total for TRS and SO₂ was assigned. The applicant was unable to provide the information needed for the Department to follow its normal practice of assigning a specific individual mass emission limit to each source at this time. So, individual limitations will be assigned on the basis of testing before and after and any proposed future changes to these permitted sources that have not been specifically authorized by these permits.

The applicant is required to install a device to continuously monitor and record combustion temperature on the proposed TRS incinerator pursuant to 40 CFR 60.284(b)(1)[Federal NSPS-Kraft Pulp Mills]. Periods of reportable excess emissions are defined by 40 CFR 60.284(d)(3)(ii)[Federal NSPS-Kraft Pulp Mills]. The continuous monitoring of emissions is also subject to the applicable requirements of FAC Rule 17-2.710(4)[Continuous Monitoring Requirements-Quarterly Reporting Requirements]. Since the applicant states that the proposed use of a natural draft stack would negate the value of continuous oxygen monitoring data for the proposed TRS incinerator--the Department is exempting the applicant from this requirement of FAC Rule 17-2.710(3)(c)[Continuous Emission Monitoring-General Requirements].

The applicant's proposed project will also be subject to the applicable provisions of FAC Rules 17-2.240[Circumvention], 17-2.250[Excess Emissions], 17-2.600(4)(c)1.c.[Specific Source Emission Limiting Standards-Kraft (Sulfate) Pulp Mills and Tall Oil Plants-TRS-Digester Systems, etc.], and 17-4.130, [Plant Operation-Problems]. The applicant has requested approval of the proposed 250-ft. incinerator stack as part of the required contingency plan. The Department will not act on this without the full required contingency plan submission.

The applicant is also required to install source sampling facilities on the proposed TRS incinerator and perform source testing for TRS, particulate, and SO₂ in accordance with the provisions of 17-2.700[Stationary Point Source Emissions Test Procedures], and 40 CFR 60[Federal NSPS]. The continuous monitoring equipment is also to be certified in accord with the applicable provisions of 40 CFR 60 [Federal NSPS].

Pursuant to the applicable provisions of FAC Rules 17-2.960 [Compliance Schedules for Specific Source Emission Limiting Standards] and 17-2.971[Compliance Schedules for Continuous Monitoring Requirements] final compliance is to be achieved by May 12, 1989.

III. Summary of Emissions and Air Quality Analysis

A. Summary of Emissions

The applicant has quantified the emissions and the changes in emissions that are expected to result from the proposed project. These changes represent the aggregate total of emissions from the affected sources at the proposed point of incineration.

Pollutant	Before Maximum (lbs/hr) ¹	After Maximum (lbs/hr) ¹	Change Maximum (tons/yr) ²
Particulate	--	2.4	+10.7
TRS ³	637.5	0.1	-1823.8
SO ₂	--	1200.0	+3433.9
NOx	--	1.5	+6.8
CO	--	0.4	+1.7
VOC	--	0.1	+0.3

1. Based on maximum 3-hour estimate.
2. Based on maximum 24-hr avg. estimate.
3. Based on information supplied by the applicant that the TRS gases emitted by the pre-evaporators and condensate stripper were previously emitted to the air.

B. Air Quality

The operation of the TRS incinerator will result in a significant emissions increase of sulfur dioxide (SO₂). An agreement between the Department, the EPA, and the pulp and paper industry was reached making emissions increases not applicable to the Prevention of Significant Deterioration (PSD) regulations as long as the increases were solely due to TRS control. At no time, however, are the increases allowed to violate ambient air quality standards or PSD increments. To determine if standards or increments would be violated, the applicant has completed an air quality modeling analysis. The Department has reviewed the applicant's modeling. Based on this analysis, the Department has reasonable assurance that the proposed modification, as described in this permit and subject to the conditions of approval proposed herein, will not cause or contribute to a violation of any PSD increment or ambient air quality standard.

Modeling Methodology

The EPA-approved Industrial Source Complex Short-Term (ISCST) atmospheric dispersion model was used to predict the impact of the Georgia-Pacific SO₂ emissions on the surrounding ambient air. This model determines ground-level concentrations of inert gases or small particulates emitted into the atmosphere

by point, area, or volume-type sources. It incorporates elements for plume rise, transport by the mean wind, and Gaussian dispersion. In addition, the model allows for the separation of sources, building wake downwash, adjustment for calm conditions, and various other input and output features.

The applicant conducted the modeling in two phases. The initial (screening) phase used five years of meteorological data of a coarse (400 meter resolution) grid of 216 receptors surrounding the facility. All significant sources at Georgia-Pacific and surrounding facilities were modeled. From these modeling runs the critical days (those having the highest predicted concentrations) were identified. The final (refined) phase of the analysis modeled for those critical days and used a finer resolution receptor grid. These results were then compared with the appropriate standards or increments.

The five years of sequential hourly meteorological data used in the model were National Weather Service (NWS) data from Jacksonville, Florida for the years 1981-85. The mixing height data were derived from upper air observations taken by the NWS at Waycross, Georgia for the same period. Since five years of data were used, the highest, second-high short-term predicted concentrations were compared with the appropriate standards or increments.

The following are the stack and emission characteristics for the proposed TRS incinerator:

Stack Height	65 m
Stack Diameter	0.98 m
Gas Exit Temperature	561 K
Gas Exit Velocity	13.5 m/s
SO ₂ Emission Rate	98.7 g/s (24-hr and annual avg.) 151.2 g/s (3-hr avg.)

A detailed description of the modeling methodology can be found in the Georgia-Pacific permit application on file with the Department.

Ambient Air Quality Standards Analysis

In general, the total ambient air quality impacts are determined by adding the maximum predicted modeled concentrations to an estimated background concentration for each pollutant. Since all significant sources of SO₂ in the vicinity of the Georgia-Pacific facility were included in the modeling, the background SO₂ concentration was estimated to be 0 ug/m³. The results of the modeling appropriate for comparison with the ambient standards are as follows:

Pollutant	Averaging Time	Max. Concentration (ug/m ³)	Florida AAQS (ug/m ³)
SO ₂	Annual	19	60
	24-hour	210	260
	3-hour	609	1300

Given existing air quality in the vicinity of the proposed facility, emissions from this facility are not expected to cause or contribute to a violation of a ambient air quality standard.

PSD Increment Analysis

The PSD increments represent the amount that new sources may increase the ambient ground-level concentrations of SO₂. The purpose of these increment limitations is to prevent areas of good air quality from being degraded all the way to the level of the ambient air quality standard. All emission increases at major facilities which occurred after January 6, 1975, and all emission increases at all sources after the baseline date of December 27, 1977 are considered new sources and will consume PSD increment. The applicant has separately modeled these sources.

The results of the modeling for PSD increments are as follows:

Pollutant	Avg. Time	Max. Inc. Consumed	Max. Allowed
SO ₂	Annual	8	20
	24-hr	78	91
	3-hr	378	512

The percent of the allowed increments consumed is quite high, but within the maximum allowed.

IV. Conclusion

The Department proposes to issue the permits based on the statements and information provided by the applicant.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

PERMITTEE:
Georgia-Pacific Corporation
P. O. Box 919
Palatka, Florida 32078-0919

Permit Numbers: AC 54-142282
AC 54-142283
AC 54-142288
AC 54-142291

Expiration Date: Sept. 9, 1989

County: Putnam

Latitude/Longitude: 29° 41' 00" N
81° 40' 45" W

Project: Construction of No. 3
Digesting Blow heat Accumulator;
Pre-Evaporator Stage for No. 1,
2, 3, and 4 Multiple Effect
Evaporator Systems with Concen-
trator Stage; NSPS Condensate
Stripper System; TRS Incinera-
tor; and Noncondensable Gas
Handling System

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 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:

The construction of a new No. 3 digesting blow heat accumulator as a replacement for No. 1 and No. 2 digesting accumulators. The construction of improvements to the turpentine condenser system. The construction of a pre-evaporator (blow heat evaporator) stage that will precede the No. 1, 2, 3, and 4 multiple effect evaporators which are followed by a concentrator stage--the multiple effect evaporation system in these permits. The construction of a steam condensate stripper system subject to 40 CFR 60. The construction of a TRS incinerator and a noncondensable gas (NCG) handling system to convey all air pollutant emissions from the digester system, multiple effect evaporation system, and condensate stripper system to the TRS incinerator.

The permit numbers are assigned as follows: AC 54-142282, Digester System; AC 54-142283, Multiple Effect Evaporation System; AC 54-142288, Condensate Stripper System; and, AC 54-142291, TRS Incinerator.

The modification shall be in accordance with the attached permit application except as otherwise noted under the General Conditions and Specific Conditions set forth in this permit.

PERMITTEE:
Georgia-Pacific Corp.

Permit Number: AC 54-142282
54-142283
54-142288
54-142291
Expiration Date: Sept. 9, 1989

Attachments:

1. TRS Compliance Plan and Construction Permit Applications, Georgia-Pacific Corporation, Palatka, Florida, November 1987, received November 20, 1987.
2. C. H. Fancy's letter to Georgia-Pacific dated December 18, 1987.
3. Vernon Adams' letter to C. H. Fancy received January 27, 1988.
4. Air Quality Impact Analysis of Georgia-Pacific Corporation, Palatka, Florida, December 1987 received January 27, 1988.
5. Vernon Adams' letter to M. Harley received February 9, 1988.
6. Vernon Adams' letter to J. Cole received February 15, 1988.
7. Technical Evaluation and Preliminary Determination dated March 17, 1988.

PERMITTEE:
Georgia-Pacific Corp.

Permit Number: AC 54-142282
54-142283
54-142288
54-142291
Expiration Date: Sept. 9, 1989

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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. Nor 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 does not constitute 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, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, 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:
Georgia-Pacific Corp.

Permit Number: AC 54-142282
54-142283
54-142288
54-142291
Expiration Date: Sept. 9, 1989

GENERAL CONDITIONS:

6. The permittee shall at all times 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, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring 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 notify and provide the Department with the following information:

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

PERMITTEE:
Georgia-Pacific Corp.

Permit Number: AC 54-142282
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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 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 arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

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 17-4.12 and 17-30.30, 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 is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- () Determination of Best Available Control Technology (BACT)
- () Determination of Prevention of Significant Deterioration (PSD)
- (x) Compliance with New Source Performance Standards. (AC 54-142288)

14. The permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the Department, during the course of any unresolved enforcement action.

PERMITTEE:
Georgia-Pacific Corp.

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GENERAL CONDITIONS:

- b. The permittee shall retain 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), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be 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 date(s) 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 submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. The sources are permitted to operate continuously (i.e., 8760 hrs/year).
2. The emissions from the digester system (consisting of 13 digester systems); the multiple effect evaporation system (consisting of 4 multiple effect evaporator systems); and the NSPS condensate stripper system shall be collected and incinerated in the TRS incinerator. Note that each digester system includes the turpentine condenser system, blow heat accumulator, etc.; and that each multiple effect evaporator

PERMITTEE:
Georgia-Pacific Corp.

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SPECIFIC CONDITIONS:

system includes the concentrator, the pre-evaporator, hotwells, etc. Actual mass emissions from each system shall be determined prior to and after any future changes, meaning those changes to the permitted systems not specifically authorized by these permits.

3. TRS emissions from the TRS incinerator shall not exceed 5 ppmv on dry basis at standard conditions corrected to 10% oxygen as a 12-hour average. Mass TRS emissions from the TRS incinerator shall exceed neither 0.12 lb/hr nor 0.53 ton/year. The mass TRS emissions are the maximum permitted aggregate total mass emissions allowed for the permitted sources. No objectionable odor shall be emitted from the TRS incinerator.

4. Particulate emissions from the TRS incinerator shall not exceed 0.08 grain/dry standard cubic foot corrected to 50% excess air. Particulate emissions from the TRS incinerator shall exceed neither 2.44 lbs/hour nor 10.69 tons/year.

5. SO₂ emissions from the TRS incinerator shall exceed neither 1200 lbs/hr nor 3434 tons/year.

6. The following operation rates shall not be exceeded. These operation rates shall be continuously monitored and recorded.

a. The maximum operation rate of the digester system (AC 54-144282) shall exceed neither 235,970 lbs of air dried unbleached pulp (ADUP)/hour nor a 24-hr average of 154,167 lbs of ADUP/hr. The maximum 24-hr average operation rate is based on the nominal 24-hour average input of 291,417 lbs of dry wood chips/hour, 556,501 lbs of white liquor/hr, and 167,078 lbs of black liquor/hour; and the output of 238,958 lbs of dry black liquor solids (BLS)/hr and 932 lbs of crude sulfate turpentine/hour.

b. The maximum operation rate of the multiple effect evaporation system (AC 54-142283) shall not exceed 259,121 lbs of dry BLS/hour at the concentrator outlet. The maximum operation rate is based on a nominal input of 238,958 lbs of dry BLS/hr to the pre-evaporator stage of evaporation; 40,208 lbs of dry BLS/hour to the No. 1 multiple effect evaporators; 71,482 lbs of dry BLS/hour to each the No. 2 and No. 3 multiple effect evaporators; 75,949 lbs of dry BLS/hour to the No. 4 multiple effect evaporators; and 238,958 lbs of dry BLS/hour to the concentrator stage of evaporation.

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Georgia-Pacific Corp.

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SPECIFIC CONDITIONS:

c. The maximum operation rate of the condensate stripper system (AC 54-142288) shall exceed neither 681 lbs of methanol/hour nor a 24-hour average of 446 lbs of methanol/hour. The maximum 24-hour average operation rate is based on the nominal input of 45,181 lbs of pre-evaporator effect condensate/hour; 20,016 lbs of turpentine condensate/hour; 6,520 lbs of miscellaneous source condensate/hour; and, 16,200 lbs of steam/hour.

7. The following hourly operation rate and fuel input rates to the TRS incinerator (AC 54-142291) shall not be exceeded. The maximum hourly inputs of fuels shall be continuously monitored and recorded.

a. The total maximum hourly heat input due to methanol and natural gas either singularly or in combination shall not exceed 8.0 million Btu/hr.

b. Natural gas with a sulfur content not to exceed 0.1% by weight may be used during periods of startup, shutdown, and malfunction providing the maximum hourly quantity does not exceed 7,620 cubic feet (60°F and 14.7 psia)/hour. Natural gas may also be used as a supplemental fuel and the total heat input due to all fuels does not exceed that allowed by Specific Condition No. 7.a.

c. Methanol with a sulfur content below the minimum detectable level of applicable sampling methods (acceptable to the DER and U.S. EPA) may be used providing the maximum hourly quantity does not exceed 124 gallons/hour and the total heat input due to all fuels does not exceed that allowed by Specific Condition No. 7.a.

8. All TRS gases burned in the TRS incinerator shall be subjected to a minimum temperature of at least 1200°F for at least 0.5 second. A device to continuously monitor and record combustion temperature at the point of incineration shall be installed pursuant to all applicable requirements of 40 CFR 60.284(b)(1).

9. Excess emissions of TRS from the TRS incinerator shall be reported and evaluated pursuant to FAC Rule 17-2.710(4). For the purposes of this Specific Condition the excess emissions to be reported shall be those defined by 40 CFR 60.284(c)(3)(ii).

PERMITTEE:
Georgia-Pacific Corp.

Permit Number: AC 54-142282
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54-142291
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SPECIFIC CONDITIONS:

10. All excess emissions from the digester system the multiple effect evaporation system, the condensate stripper system, the noncondensable gas handling (NCG) system, and the TRS incinerator shall be subject to the applicable requirements of FAC Rules 17-2.240, 17-2.250, 17-2.600(4)(c)l.c., and 17-2.130. The required contingency plan shall be submitted to the DER Northeast District office no later than June 11, 1989.

11. All continuous monitoring and recording systems shall be regularly calibrated and maintained pursuant to written procedures and schedules recommended by the instrument manufacturer.

12. The TRS incinerator shall be equipped with the point source sampling facilities required by FAC Rule 17-2.700. Point source compliance testing shall be conducted with all sources operating at 90 to 100 percent of the operation rates allowed by Specific Condition Nos. 6 and 7. All point source emission tests shall be conducted using the applicable methods and procedures in FAC Rule 17-2.700.

13. Compliance testing and continuous monitoring system certification shall be in accordance with the provisions of 40 CFR 60. Initial compliance testing, certification, and calibration shall be completed not later than May 12, 1989. Compliance tests shall be conducted annually, thereafter. The compliance test reports shall include all information required by FAC Rule 17-2.700(7). Notification of testing shall be furnished to the DER Northeast District office.

14. In order to retain the existing source designation of the multiple effect evaporation system, the company shall demonstrate to the DER through emission testing that the installation of the pre-evaporation stage will neither result in increased mass emissions of TRS to the atmosphere nor the noncondensable gas handling system.

15. The digester system, multiple effect evaporation system, condensate stripper system, NCG system, and TRS incineration system shall be constructed, operated, and maintained pursuant to all applicable provisions of Chapter 403, FS; FAC Chapters 17-2 and 17-4; and federal regulations.

PERMITTEE:
Georgia-Pacific Corp.

Permit Number: AC 54-142282
54-142283
54-142288
54-142291
Expiration Date: Sept. 9, 1989

SPECIFIC CONDITONS:

16. For the purposes of future permits and PSD determinations, the mass emissions of pollutants listed in Table 500-2 and the associated emission changes are:

Compliance

Pollutant	Pre-		Post-		Changes	
	lbs/hr ¹	T/Y ²	lbs/hr ¹	T/Y ²	lbs/hr ¹	T/Y ²
Particulate	--	--	2.4	10.7	+2.4	+10.7
TRS ³	637.5	1824.3	0.1	0.5	-637.4	-1823.8
SO ₂	--	--	1200	3433.9	+1200	+3433.9
NOx	--	--	1.5	6.8	+1.5	+6.8
CO	--	--	0.4	1.7	+0.4	+1.7
VOC	--	--	0.1	0.3	+0.1	+0.3

¹Based on maximum 3-hour estimate.

²Based on maximum daily estimate.

³Based on information supplied by the company that the TRS gases emitted by the pre-evaporators and condensate stripper were previously emitted to the air.

17. Applications for operation permits with the appropriate fees, test results, and other data shall be submitted to the DER Northeast District office within 30 days after the initial compliance testing is completed, but not later than June 11, 1989.

Issued this _____ day of _____, 19____

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

Dale Twachtmann, Secretary

P 274 010 440

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

PS Form 3800, June 1985
 * U.S.G.P.O. 1985-480-794

Sent to Mr. Henry Hirschman, G.M. Georgia-Pacific Corp.	
Special Box 919	
P.O., State, and ZIP Code Palatka, FL 32078-0919	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date Mailed: 03-21-88	
Permits: AC 54-142282, -83, -84 -85, -86, -87, -88, -90, -91	

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. Show to whom delivered, date, and addressee's address. 2. Restricted Delivery.

3. Article Addressed to: Mr. Henry Hirschman General Manager Georgia-Pacific Corporation P.O. Box 919 Palatka, FL 32078-0919	4. Article Number P 274 010 440
	Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail
Always obtain signature of addressee or agent and DATE DELIVERED.	
5. Signature - Addressee X <i>Georgia Pacific Corp</i>	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature - Agent X <i>S. Brown</i>	
7. Date of Delivery <i>3/23/88</i>	

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SENDER INSTRUCTIONS

Print your name, address, and ZIP Code in the space below.

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- Endorse article "Return Receipt Requested" adjacent to number.



PENALTY FOR PRIVATE
USE, \$300

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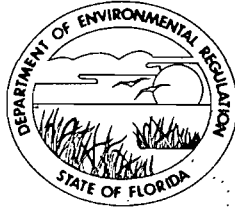
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, FL 32399-2400

DER - BAQM
ATTN: M. JANES



STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

March 17, 1987

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Henry Hirschman
General Manager
Georgia-Pacific Corporation
P.O. Box 919
Palatka, Florida 32078-0919

Dear Mr. Hirschman:

Re: Permit Applications for No. 3 Digesting Accumulator Tank, Black Liquor Pre-evaporators, No. 1 Black Liquor Evaporator Set, No. 2 Black Liquor Evaporator Set, No. 3 Black Liquor Evaporator Set, No. 4 Black Liquor Evaporator Set and Concentrator, Condensate Stripper, Turpentine Condenser, TRS Incinerator, Nos. AC 54-142282, -142283, -142284, -142285, -142286, -142287, -142288, -142290, -142291.

On January 27, 1988, we received Mr. Vernon Adams' response to my letter about the incompleteness of the above referenced permit applications. As a result of his response and the agreements reached at our January 27, 1988 meeting with Messrs. Adams and Buff--we have combined, renumbered, and retitled your applications as follows:

1. The permit applications for the "No. 3 Digesting accumulator tank" and the "Turpentine condenser" which were application numbers AC54-142282 and AC54-142290, respectively, have been combined. The combined application is "Digester system" which is application number AC54-142282.
2. The permit applications for the "Black liquor pre-evaporators", the "No. 1 black liquor evaporator set", the "No. 2 black liquor evaporator set", the "No. 3 black liquor evaporator set", and the "No. 4 black liquor evaporator set and concentrator" which were application numbers AC54-142283, AC54-142284, AC54-142285, AC54-142286, and AC54-142287, respectively, were combined. The combined application is "Multiple effect evaporation system" which is application number AC54-142283.
3. The applications for the "Condensate stripper" and the "TRS Incinerator" which are application numbers AC54-142288 and AC54-142291, respectively, are unchanged.

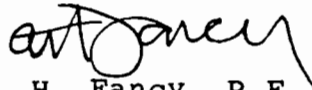
Mr. Henry Hirschman
Page 2
March 17, 1988

The actions described above resulted in a reduction of the application fees. A refund of the overpayment will be sent as soon as the paperwork can be processed.

As a result of the cooperation provided by Messrs. Adams and Buff, we will be able to issue draft permits shortly. Your draft construction permits have been typed and are being reviewed.

Thank you for your cooperation. If you have any questions, please call Bill Thomas at (904) 488-1344 or write to me at the address above.

Sincerely,



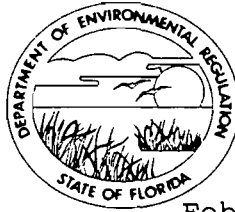
C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

CHF/MH/ss

cc: Vernon Adams
David Buff, P.E.
Bill Stewart

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHEAST DISTRICT
3426 BILLS ROAD
JACKSONVILLE, FLORIDA 32207
904/798-4200



BOB MARTINEZ
GOVERNOR
DALE TWACHTMANN
SECRETARY
ERNEST E. FREY
DISTRICT MANAGER
GARY L. SHAFFER
ASSISTANT DISTRICT MANAGER

February 22, 1988

Mr. Henry Hirschman
General Manager
Georgia-Pacific Corporation
Post Office Box 919
Palatka, Florida 32078-0919

RECEIVED

FEB 24 1988

Dear Mr. Hirschman:

DER-BAQM

Putnam County - AP
Georgia-Pacific Corporation
Pulp and Paper Mill
No. 1 Black Liquor Evaporator (BLE)
ID #31JAX54000526

Permit No. A054-116068 for No. 1 BLE is revised as follows based on the February 11 and 18, 1988 requests:

On page 1, change:

234,090 at 14% solids to 236,520 lbs BL/hr at 17% solids

On page 5, in Specific Condition #1, change:

234,090 at 14% solids to 236,520 lbs BL/hr at 17% solids.

On page 5, in Specific Condition #2, change:

69.75 to 52.5 lbs/hr¹
304.68 to 149.6 TPY⁴

¹Basis: From TRS incinerator ACP, Attachment B, (106 + 26 + 26 + 26 + 26) ÷ 4³ = 52.5

³Note: Based on each evaporator is designed for 25% of BL flow

⁴Basis: From TRS incinerator ACP, Attachment B, (69 + 17 + 17 + 17 + 17) ÷ 4 = 34.25 x 4.368 = 149.6

Attachments to be incorporated:

Letter dated February 11, 1988 from Vernon L. Adams
Letter dated February 18, 1988 from Vernon L. Adams

This letter and the attachments (or copy of same) must be attached to permit No. A054-116068 and shall become a part of that permit.

Copied: CHF:BT
Mike Harley } 2-24-88

Sincerely,

Ernest E. Frey
District Manager

EEF:jck
Attachments

cc: Mike Harley, BAQM, CAPS
Protecting Florida and Your Quality of Life

BFH

2/24/88

~~CH~~

~~BY~~

} PHI

(M)



Georgia-Pacific Corporation *Palatka Operation*
Southern Pulp & Paper Division
 P.O. Box 919
 Palatka, Florida 32078-0919
 Telephone (904) 325-2001

HAND DELIVERED

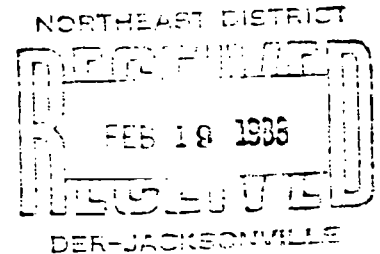
February 18, 1988

Mr. Johnny Cole
 Florida Department of
 Environmental Regulation
 3426 Bills Rd.
 Jacksonville, Florida 32207

RECEIVED

FEB 24 1988

DER-BAQM



Dear Johnny;

In accordance with our discussions by phone today, I would like to confirm several items relating to our evaporator operating permits. The 3 hour emission rate contained in my letter to you of February 11, 1988 should be used as the hourly maximum emission rate for these units. The 24 hour maximum average emission rate should be used to determine the tons per year emissions from the evaporators. The difference between the 3 hour maximum rate and the 24 hour maximum rate of emissions is due to process variations which would not be allowed to continue for periods of ample time to exceed the 24 hour emission rate.

The operating rates listed below represent the maximum weight of black liquor at 17% solids we can process through each of the evaporators sets per hour. This number should be used to calculate the daily maximum operating rate.

Evaporator	Permit	Operating Rate
#1 Set	A054-116068	236,520 lbs. BL/hr.
#2 Set	A054-116069	420,480 lbs. BL/hr.
#3 Set	A054-116070	420,480 lbs. BL/hr.
#4 Set	A054-116071	446,760 lbs. BL/hr.

If you have any questions please call me.

Sincerely,

Vernon L. Adams
 Supervisor of
 Environmental Affairs

cc: W. L. Baxter
 D. Buff
 M. Harley
 H. Hirschman
 E. Schmidt

DEPARTMENT OF ENVIRONMENTAL REGULATION

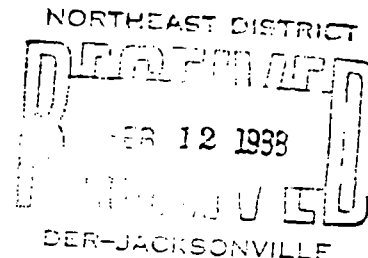
ROUTING AND TRANSMITTAL SLIP		ACTION NO	
		ACTION DUE DATE	
1. TO: (NAME, OFFICE, LOCATION)	RECEIVED	Initial	Date
2.	FEB 24 1988	Initial	Date
3.	DER-BAQM	Initial	Date
4.	<i>Mike Horley</i>	Initial	Date
REMARKS: <i>BAQM</i> <i>CAPS</i>	INFORMATION		
	<input type="checkbox"/> Review & Return <input type="checkbox"/> Review & File <input type="checkbox"/> Initial & Forward		
	DISPOSITION		
	<input type="checkbox"/> Review & Respond		
	<input type="checkbox"/> Prepare Response		
	<input type="checkbox"/> For My Signature		
	<input type="checkbox"/> For Your Signature		
	<input type="checkbox"/> Let's Discuss		
	<input type="checkbox"/> Set Up Meeting		
	<input type="checkbox"/> Investigate & Report		
	<input type="checkbox"/> Initial & Forward		
	<input type="checkbox"/> Distribute		
	<input type="checkbox"/> Concurrence		
	<input type="checkbox"/> For Processing		
	<input type="checkbox"/> Initial & Return		
FROM:	DATE		
	PHONE		



Georgia-Pacific Corporation *Palatka Operations*
Southern Pulp & Paper Division
 P.O. Box 919
 Palatka, Florida 32078-0919
 Telephone (904) 325-2001

February 11, 1988

Mr. Johnny Cole
 Florida Department of
 Environmental Regulation
 3426 Bills Rd.
 Jacksonville, Florida 32207



Dear Johnny;

Pursuant to my discussions with Mr. Mike Harley who is processing our construction permit applications for the TRS control system, and the intent of the TRS interim permits it has become apparent that we need to modify the interim operating permits for our #1, #2, #3 and #4 sets of evaporators. The intent of the department was that the interim permits reflect the maximum input rates the permitted sources were capable of operating at. The evaporators were originally permitted to evaporate a certain amount of water which is what evaporators do. The black liquor solids throughput rate for these evaporators was based on a feed of 14% solids liquor. These evaporators are capable of evaporating the same amount of water with a 17% solids feed liquor and thus processing a higher rate of black liquor solids throughput. As the interim permits are suppose to represent the highest operating rate we are capable of, please modify the interim permits to reflect the operating rates listed below. Modified emission rate estimates are also included.

Evaporator	Permit	Operating Rate
#1 Set	A054-116068	236,520 lbs. BL/hr.
#2 Set	A054-116069	420,480 lbs. BL/hr.
#3 Set	A054-116070	420,480 lbs. BL/hr.
#4 Set	A054-116071	446,760 lbs. BL/hr.

Evaporator	TRS Emissions		
	3 Hr. Max	24 Hr. Max Avg.	Max Tons/Yr
#1 Set	52.5 lbs./hr.	34.25 lbs./hr.	149.5 tons/yr.
#2 Set	52.5 lbs./hr.	34.25 lbs./hr.	149.5 tons/yr.
#3 Set	52.5 lbs./hr.	34.25 lbs./hr.	149.5 tons/yr.
#4 Set	52.5 lbs./hr.	34.25 lbs./hr.	149.5 tons/yr.

The emission rate estimates are higher than those contained in the interim operating permits. This is because the operating rates are being changed to reflect more appropriate rates and the method of estimating emissions has been changed. The new emission estimates are based upon information provided by A. H. Lunberg and Associates and is believed to be more accurate than the previous estimates. The numbers are consistent between sets since they are just estimates and it is believed the approximate nature of estimates does not justify further differentiation.

Please modify the interim operating permits to reflect the above request. If you have any questions please call me.

Sincerely,



Vernon L. Adams
Supervisor of
Environmental Affairs

cc: W. L. Baxter
D. Buff
M. Harley
H. Hirschman
E. Schmidt



Georgia-Pacific Corporation *Palatka Operations*
Southern Pulp & Paper Division
P.O. Box 919
Palatka, Florida 32078-0919
Telephone (904) 325-2001

PM
2/16/88
Palatka, FL

File Copy

February 15, 1988

Mr. Mike Harley
Bureau of Air Quality Management
Florida Department of
Environmental Regulation
2600 Blair Stone Rd.
Tallahassee, Florida 32399-2400

DER

FEB 17, 1988 (ms)

BAQM

Dear Mike;

Pursuant to our phone conversation last week, this letter is to confirm the fact that 2.5 % sulfur fuel oil would be used as a backup fuel in the TRS incinerator if the methanol from the condensate stripper was not available. The utilization of the fuel oil would of course result in higher SO2 emissions than the utilization of methanol.

This is just one more example of how the condensate stripper will result in environmental improvement.

If I can be of further assistance please call me.

Sincerely,

Vernon L. Adams
Supervisor of
Environmental Affairs

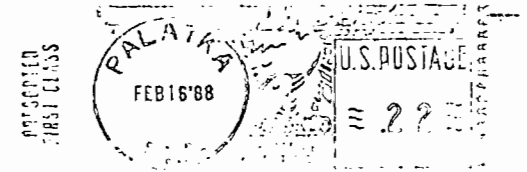
cc: W. L. Baxter
D. Buff
H. Hirschman
A. Hodges
E. J. Schmidt

Copied: Mike Harley }
CHF/BT } 2.24.88

Georgia-Pacific

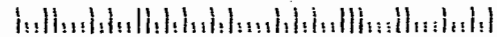


P. O. Box 919
Palatka, Florida 32078-0919
Vernon L. Adams



2/24/88
~~CHI~~ FYI
④

Mr. Mike Harley
Bureau of Air Quality Management
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400





PM
Feb. 11, 1988
Palatka, FL

File Copy

Georgia-Pacific Corporation *Palatka Operations*
Southern Pulp & Paper Division
P.O. Box 919
Palatka, Florida 32078-0919
Telephone (904) 325-2001

February 11, 1988

Mr. Johnny Cole
Florida Department of
Environmental Regulation
3426 Bills Rd.
Jacksonville, Florida 32207

DER
FEB 15, 1988 *(m)*
BAQM

Dear Johnny;

Pursuant to my discussions with Mr. Mike Harley who is processing our construction permit applications for the TRS control system, and the intent of the TRS interim permits it has become apparent that we need to modify the interim operating permits for our #1, #2, #3 and #4 sets of evaporators. The intent of the department was that the interim permits reflect the maximum input rates the permitted sources were capable of operating at. The evaporators were originally permitted to evaporate a certain amount of water which is what evaporators do. The black liquor solids throughput rate for these evaporators was based on a feed of 14% solids liquor. These evaporators are capable of evaporating the same amount of water with a 17% solids feed liquor and thus processing a higher rate of black liquor solids throughput. As the interim permits are suppose to represent the highest operating rate we are capable of, please modify the interim permits to reflect the operating rates listed below. Modified emission rate estimates are also included.

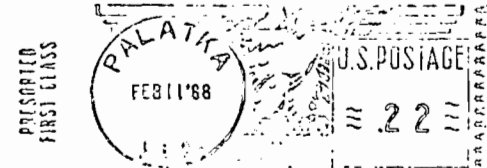
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#3 Set	A054-116070	420,480 lbs. BL/hr.
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Evaporator	TRS Emissions		
	3 Hr. Max	24 Hr. Max Avg.	Max Tons/Yr
#1 Set	52.5 lbs./hr.	34.25 lbs./hr.	149.5 tons/yr.
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#3 Set	52.5 lbs./hr.	34.25 lbs./hr.	149.5 tons/yr.
#4 Set	52.5 lbs./hr.	34.25 lbs./hr.	149.5 tons/yr.

Georgia-Pacific



P. O. Box 919
Palatka, Florida 32078-0919



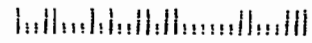
2-15-88

~~CH~~
~~BT~~ } FYI



Attention: M. Harley

State of Florida
Dept. of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32301



The emission rate estimates are higher than those contained in the interim operating permits. This is because the operating rates are being changed to reflect more appropriate rates and the method of estimating emissions has been changed. The new emission estimates are based upon information provided by A. H. Lunberg and Associates and is believed to be more accurate than the previous estimates. The numbers are consistent between sets since they are just estimates and it is believed the approximate nature of estimates does not justify further differentiation.

Please modify the interim operating permits to reflect the above request. If you have any questions please call me.

Sincerely,



Vernon L. Adams
Supervisor of
Environmental Affairs

cc: W. L. Baxter
D. Buff
M. Harley
H. Hirschman
E. Schmidt

2-15-88 (M)

Copied CHF/BT

- AC JA - 142282
- 54 - 142283
- 54 - 142284
- 54 - 142285
- 54 - 142286
- 54 - 142287
- 54 - 142288
- 54 - 142290
- 54 - 142291



Georgia-Pacific Corporation Palatka Operations
 Southern Pulp & Paper Division
 P.O. Box 919
 Palatka, Florida 32078-0919
 Telephone (904) 325-2001

February 4, 1988

Mr. Mike Harley
 Bureau of Air Quality Management
 Florida Department of
 Environmental Regulation
 2600 Blair Stone Rd.
 Tallahassee, Florida 32399-2400

DER
 FEB 9, 1988
BAQM

Dear Mike;

Pursuant to our meeting on January 27, 1988 Georgia-Pacific has reviewed the permit applications for the above referenced sources. The particular items you asked us to review dealt with the rates of the digester and evaporator systems and the use of the condensate.

The evaporator flow rates as requested in the construction permit applications are correct. We do not believe the evaporator system qualifies for NSPS status and do not want it classified as such.

In determining a one hour maximum production rate for the digesting system, we multiplied the 24 hour maximum production rate from the application, by the same ratio utilized to predict the three hour maximum emissions from the 24 hour maximum emissions. This results in a 1 hour maximum rate of 235,970 lbs. ADP per hour.

$$154,167 \text{ lbs./hr. ADP} \times 300/196 = 235,970 \text{ lbs./hr. ADP}$$

The installation of the condensate stripper will result in further TRS reductions by cleaning up the condensates which are already used other places in the mill, as well as providing fuel for the incinerator.

If I can be of further assistance please call me.

Sincerely,

Vernon L. Adams
 Supervisor of
 Environmental Affairs

- cc: W. L. Baxter
 D. Buff
 A. Hodges
 H. Hirschman
 E. J. Schmidt

Copied: Mike Harley
 CHF/BT
 Bill Stewart - Jax Dist
 Khurshid Mehta - G&S } 2-10-88 (m)

Georgia-Pacific



P. O. Box 919
Palatka, Florida 32078-0919



2-10-88

~~C~~
~~B~~ } FYI

(ij)

Mr. Mike Harley
Bureau of Air Quality Management
Florida Dept. of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400



Georgia-Pacific Corporation *Palatka Operations*
Southern Pulp & Paper Division
P.O. Box 919
Palatka, Florida 32078-0919
Telephone (904) 325-2001

January 25, 1988

Hand Delivered

Mr. Clair H. Fancy
Deputy Chief
Bureau of Air Quality Management
Florida Department of
Environmental Regulation
2600 Blair Stone Rd.
Tallahassee, Florida 32399-2400

DER

JAN 27, 1988 *my*

BAQM

Dear Mr. Fancy:

Re: Permit Applications for No. 3 Digesting Accumulator Tank, Black Liquor Pre-evaporators, No. 1 Black Liquor Evaporator Set, No. 2 Black Liquor Evaporator Set, No. 3 Black Liquor Evaporator Set, No. 4 Black Liquor Evaporator Set and Concentrator, Condensate Stripper, Turpentine Condenser, Incinerator, Nos. AC 54-142282, -142283, -142284, -142285, -142286, -142287, -142288, -142290, -142291.

We have received your letter of incompleteness dated December 18, 1987 pertaining to the permit applications for the above referenced sources. The additional information needed by the department, to process these permits is being supplied through this letter. Your letter and questions imply that several of the above referenced sources will be subject to full PSD and new source review as part of this permitting process, this was not the intent of the TRS regulations and is in fact contrary to the intent expressed by the Department's management during our discussions. Georgia-Pacific Corporation is spending millions of dollars in an effort to comply with the TRS regulations and believes the additional review suggested in your letter will have several detrimental effects. It will most likely cause delays in the completion of the project and thus delay the compliance date. It will cause unnecessary work for the personnel of both the department and Georgia-Pacific, thus preventing them from accomplishing more constructive tasks. There is also the strong possibility that projects such as the steam stripper which will reduce TRS emissions to the atmosphere may be eliminated as the result of the extra review being required by the department. We urge you to reconsider the appropriateness of the additional reviews suggested by your letter, and help us to clean up the air in an expedient manner instead of creating unnecessary impedances through the permitting process.



PM
1-28-88
Palatka, FL

Georgia-Pacific Corporation Palatka Operations
Southern Pulp & Paper Division
P.O. Box 919
Palatka, Florida 32078-0919
Telephone (904) 325-2001

January 25, 1988

Hand Delivered

Mr. Clair H. Fancy
Deputy Chief
Bureau of Air Quality Management
Florida Department of
Environmental Regulation
2600 Blair Stone Rd.
Tallahassee, Florida 32399-2400

DER (Original response)
rec'd 1-27-88 (m)

JAN 29, 1988 (m)

BAQM

Dear Mr. Fancy:

Re: Permit Applications for No. 3 Digesting Accumulator Tank, Black Liquor Pre-evaporators, No. 1 Black Liquor Evaporator Set, No. 2 Black Liquor Evaporator Set, No. 3 Black Liquor Evaporator Set, No. 4 Black Liquor Evaporator Set and Concentrator, Condensate Stripper, Turpentine Condenser, Incinerator, Nos. AC 54-142282, -142283, -142284, -142285, -142286, -142287, -142288, -142290, -142291.

We have received your letter of incompleteness dated December 18, 1987 pertaining to the permit applications for the above referenced sources. The additional information needed by the department, to process these permits is being supplied through this letter. Your letter and questions imply that several of the above referenced sources will be subject to full PSD and new source review as part of this permitting process, this was not the intent of the TRS regulations and is in fact contrary to the intent expressed by the Department's management during our discussions. Georgia-Pacific Corporation is spending millions of dollars in an effort to comply with the TRS regulations and believes the additional review suggested in your letter will have several detrimental effects. It will most likely cause delays in the completion of the project and thus delay the compliance date. It will cause unnecessary work for the personnel of both the department and Georgia-Pacific, thus preventing them from accomplishing more constructive tasks. There is also the strong possibility that projects such as the steam stripper which will reduce TRS emissions to the atmosphere may be eliminated as the result of the extra review being required by the department. We urge you to reconsider the appropriateness of the additional reviews suggested by your letter, and help us to clean up the air in an expedient manner instead of creating unnecessary impedances through the permitting process.

The emission calculations provided in the permit applications include all applicable pollutants as listed in Table 500-2 of the Florida Administrative Code (FAC) Chapter 17-2. Those not specifically listed in the tables of the applications are omitted because we are not aware of the existence of emission factors for these pollutants as they relate to these sources. The only source which will have any particulate matter emissions is the incinerator. The estimated particulate emissions from this source are 0.055 lbs/hr or 0.24 tons/yr as detailed in the permit applications. All the emissions from this source can be assumed to be PM10. Emission rates estimates both before and after the TRS control plan have been provided in the applications for interim operating and construction permit application forms, respectively.

Responding to your information request by item:

1. In question Number 1 of your letter you are requesting a complete description of the existing sources. Since all of these sources are currently permitted, please see the existing permits for the necessary information. The equipment which is being installed is being designed specifically for Georgia-Pacific by A. H. Lunberg and Associates and specific make and model numbers are not available as such. The number of units, type of units, and maximum hourly capacity of each unit is provided in the permit applications. The diagram of the NCG system and the location map are provided in the overview of the "TRS Compliance Plan and Construction Permit Applications" packet. All regulated sources will be controlled through the NCG system or as separately permitted sources which do not relate to the permits requested in this packet.

2. The operating rates listed in the individual permits are as directed by the department during our discussions concerning the interim operating permits. The mill has made no major modifications to the existing sources since September 24, 1976, within the meaning of 40 C.F.R. 60.14, 52.21(b)(2).

3. Except for the change in gas flow rates, and emissions as requested, in the permit applications we do not expect any changes affecting emissions from other sources that would not be allowed under existing permits.

4. The best demonstration available that the NCG system will be capable of handling the gases when the sources are operating at their maximum operating rate is the fact that we have hired an engineering firm, A. H. Lunberg and Associates which is experienced in the design of such systems. The incinerator is being designed to provide for the time and temperature necessary to destroy TRS gasses. The quantification of both maximum operating rates and emissions are already provided in the permit applications.

5. We believe reconstruction analysis requested in question Number 5 of your letter is not necessary since 40 C.F.R. 60.14(e)(5) specifically provides an exemption for equipment constructed for pollution control purposes. The number 3 accumulator qualifies for this exemption since the sole reason for installing this equipment is to comply with the TRS regulations.

6. We agree the condensate stripper is subject to NSPS and will comply with the requirements of 40 C.F.R. 60 Subpart BB. The Department has expressed the position that SO2 emissions which result from the control of TRS will not trigger full PSD review, since the emissions from this source fall into this classification they do not trigger full PSD review. We are supplying an ambient air analysis and PSD increment analysis for all affected sources.

The installation of the pre-evaporators will not increase the emissions from the total evaporator system and as such does not qualify as a modification under NSPS. The evaporator system is not subject to full PSD review for the same reasons discussed above.

7. The relief gasses from digesters No. 12 and 13 are vented to the blow tank. The relief gasses from all digesters discharge to the blow tanks when hardwood is cooked. The emissions which were submitted are based on all pine being cooked which represent worst case conditions.

8. The steam stripper operates by blowing low pressure steam through the condensate in an arrangement much like a packed tower, this heats the water and strips the methanol which has a low boiling point from the condensate. Permits are not required for the use of the condensates and they will continue to be used in places which require hot water. Analysis of the condensates will not be available until after the TRS project is completed since the source of the condensates is affected by the project. The source of the steam will be from the mill steam system which is fed from the various boilers which already have permits. It is estimated that approximately 16,200 lbs steam/hr will be utilized.

9. The steam and liquor flows throughout the existing evaporator and concentrator systems will remain the same with the exception that the exhaust vapors will be piped to the NCG system. A diagram of the pre-evaporators is attached. The capacities of the evaporator systems are as stated in the permit applications for each source. These capacities approximate 25% of the total black liquor flow, in actuality they are not exact. The emission estimates are just that, estimates, and are not exact enough to justify providing different numbers for the different sources. This is especially true since the majority of the emissions from the evaporators will be removed in the pre-evaporators.

10. The hot water from the accumulator will be piped to the pre-evaporator flash tank where it will flash producing steam for the pre-evaporators. A diagram is attached.

11. The incinerator is designed to burn all of the TRS gasses from the no. 3 accumulator, the black liquor pre-evaporators, the existing evaporators, the turpentine condenser, and the condensate stripper this amounts to 5,900 lbs/hr and 70.8 tons/day. The visible emission limiting standard for the incinerator would be 20%. Estimated sulfur contents of the methanol and natural gas utilized in the incinerator are 0% and 0.0006% respectively.

12. EPA recognizes in 40 CFR 60 Subpart BB that temperature monitoring is adequate to provide evidence of complete combustion in TRS incinerators. The stack being utilized for the incinerator is designed to allow outside air to be drawn into the stack for the purpose of cooling the stack gasses. Gas temperatures prior to this mixing make oxygen monitoring impractical and monitoring after mixing is unrepresentative of combustion conditions. We believe the monitoring required by EPA is adequate.

13. The test facilities on the incinerator stack are still in the process of being designed, they will be in accordance with DER specifications. We do not intend to monitor any pollutants or surrogate parameters on a regular basis with the exception of temperature in the combustion zone.

14. The buoyancy caused by temperature of the TRS contaminated gasses will cause the TRS gasses to rise to the top of a natural draft stack just as they currently rise to the top of natural draft vents. Additional information concerning flows and modeling will be provided at a later date for the contingency plan.

15. Georgia-Pacific will submit operating permit applications in a timely manner after the certification of compliance for the system. The normal process of completing the applications and receiving departmental approval takes longer than the 90 days proposed by the department. We will agree to the department's proposal with the understanding that the construction permits will automatically be extended throughout the review process.

16. The report titled "Air Quality Impact Analysis of Georgia-Pacific Corporation Palatka, Florida December 1987" is attached. This report complies with the requirements for PSD review, as we discussed them throughout the rule development.

17. We believe the applications are accurate as submitted.

We originally suggested that it would be appropriate to issue one permit for the entire NCG system. We are encouraged that the department is leaning toward the consolidation of the evaporator permits into one evaporator system permit and the consolidation of the turpentine system and No. 3 accumulator tank into one digester system permit. The company concurs with this approach.

It is very appropriate to proceed with the issuance of all the requested permits as one unit and to proceed rapidly. The entire project schedule is dependent upon the issuance of these permits.

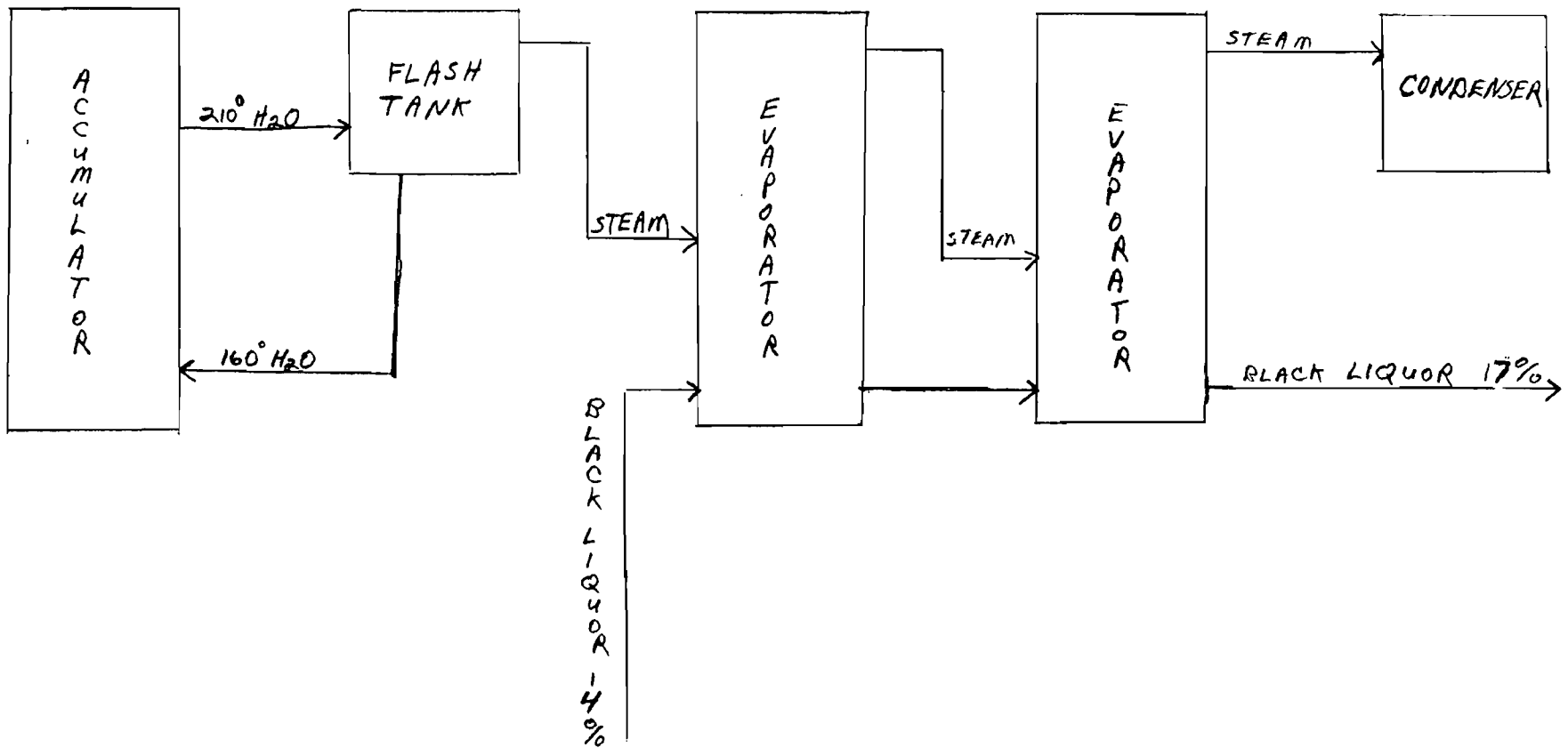
If we can be of assistance during the processing of these applications please telephone me at 904-325-2001 so that we can discuss the issues.

Sincerely,



Vernon L. Adams
Supervisor of
Environmental Affairs

cc: W. L. Baxter
A. Hodges
H. Hirschman
B. Mitchell
E. J. Schmidt





Georgia-Pacific Corporation *Palatka Operations*
Southern Pulp & Paper Division
P.O. Box 919
Palatka, Florida 32078-0919
Telephone (904) 325-2001

COPY W/NOTES

January 25, 1988

Hand Delivered

Mr. Clair H. Fancy
Deputy Chief
Bureau of Air Quality Management
Florida Department of
Environmental Regulation
2600 Blair Stone Rd.
Tallahassee, Florida 32399-2400

DER

JAN 27 1988

BAQM

Dear Mr. Fancy:

Re: Permit Applications for No. 3 Digesting Accumulator Tank, Black Liquor Pre-evaporators, No. 1 Black Liquor Evaporator Set, No. 2 Black Liquor Evaporator Set, No. 3 Black Liquor Evaporator Set, No. 4 Black Liquor Evaporator Set and Concentrator, Condensate Stripper, Turpentine Condenser, Incinerator, Nos. AC 54-142282, -142283, -142284, -142285, -142286, -142287, -142288, -142290, -142291.

We have received your letter of incompleteness dated December 18, 1987 pertaining to the permit applications for the above referenced sources. The additional information needed by the department, to process these permits is being supplied through this letter. Your letter and questions imply that several of the above referenced sources will be subject to full PSD and new source review as part of this permitting process, this was not the intent of the TRS regulations and is in fact contrary to the intent expressed by the Department's management during our discussions. Georgia-Pacific Corporation is spending millions of dollars in an effort to comply with the TRS regulations and believes the additional review suggested in your letter will have several detrimental effects. It will most likely cause delays in the completion of the project and thus delay the compliance date. It will cause unnecessary work for the personnel of both the department and Georgia-Pacific, thus preventing them from accomplishing more constructive tasks. There is also the strong possibility that projects such as the steam stripper which will reduce TRS emissions to the atmosphere may be eliminated as the result of the extra review being required by the department. We urge you to reconsider the appropriateness of the additional reviews suggested by your letter, and help us to clean up the air in an expedient manner instead of creating unnecessary impedances through the permitting process.

The emission calculations provided in the permit applications include all applicable pollutants as listed in Table 500-2 of the Florida Administrative Code (FAC) Chapter 17-2. Those not specifically listed in the tables of the applications are omitted because we are not aware of the existence of emission factors for these pollutants as they relate to these sources. The only source which will have any particulate matter emissions is the incinerator. The estimated particulate emissions from this source are 0.055 lbs/hr or 0.24 tons/yr as detailed in the permit applications. All the emissions from this source can be assumed to be PM10. Emission rates estimates both before and after the TRS control plan have been provided in the applications for interim operating and construction permit application forms, respectively.

Responding to your information request by item:

1. In question Number 1 of your letter you are requesting a complete description of the existing sources. Since all of these sources are currently permitted, please see the existing permits for the necessary information. The equipment which is being installed is being designed specifically for Georgia-Pacific by A. H. Lunberg and Associates and specific make and model numbers are not available as such. The number of units, type of units, and maximum hourly capacity of each unit is provided in the permit applications. The diagram of the NCG system and the location map are provided in the overview of the "TRS Compliance Plan and Construction Permit Applications" packet. All regulated sources will be controlled through the NCG system or as separately permitted sources which do not relate to the permits requested in this packet.

OK

2. The operating rates listed in the individual permits are as directed by the department during our discussions concerning the interim operating permits. The mill has made no major modifications to the existing sources since September 24, 1976, within the meaning of 40 C.F.R. 60.14, 52.21(b)(2).

OK

3. Except for the change in gas flow rates, and emissions as requested, in the permit applications we do not expect any changes affecting emissions from other sources that would not be allowed under existing permits.

hourly
pick
NSPS

4. The best demonstration available that the NCG system will be capable of handling the gases when the sources are operating at their maximum operating rate is the fact that we have hired an engineering firm, A. H. Lunberg and Associates which is experienced in the design of such systems. The incinerator is being designed to provide for the time and temperature necessary to destroy TRS gasses. The quantification of both maximum operating rates and emissions are already provided in the permit applications.

OK

OK 5. We believe reconstruction analysis requested in question Number 5 of your letter is not necessary since 40 C.F.R. 60.14(e)(5) specifically provides an exemption for equipment constructed for pollution control purposes. The number 3 accumulator qualifies for this exemption since the sole reason for installing this equipment is to comply with the TRS regulations.

OK 6. We agree the condensate stripper is subject to NSPS and will comply with the requirements of 40 C.F.R. 60 Subpart BB. The Department has expressed the position that SO2 emissions which result from the control of TRS will not trigger full PSD review, since the emissions from this source fall into this classification they do not trigger full PSD review. We are supplying an ambient air analysis and PSD increment analysis for all affected sources.

The installation of the pre-evaporators will not increase the emissions from the total evaporator system and as such does not qualify as a modification under NSPS. The evaporator system is not subject to full PSD review for the same reasons discussed above.

OK 7. The relief gasses from digesters No. 12 and 13 are vented to the blow tank. The relief gasses from all digesters discharge to the blow tanks when hardwood is cooked. The emissions which were submitted are based on all pine being cooked which represent worst case conditions.

ANS Forbid. 8. The steam stripper operates by blowing low pressure steam through the condensate in an arrangement much like a packed tower, this heats the water and strips the methanol which has a low boiling point from the condensate. Permits are not required for the use of the condensates and they will continue to be used in places which require hot water. Analysis of the condensates will not be available until after the TRS project is completed since the source of the condensates is affected by the project. The source of the steam will be from the mill steam system which is fed from the various boilers which already have permits. It is estimated that approximately 16,200 lbs steam/hr will be utilized.

OK 9. The steam and liquor flows throughout the existing evaporator and concentrator systems will remain the same with the exception that the exhaust vapors will be piped to the NCG system. A diagram of the pre-evaporators is attached. The capacities of the evaporator systems are as stated in the permit applications for each source. These capacities approximate 25% of the total black liquor flow, in actuality they are not exact. The emission estimates are just that, estimates, and are not exact enough to justify providing different numbers for the different sources. This is especially true since the majority of the emissions from the evaporators will be removed in the pre-evaporators.

OK 10. The hot water from the accumulator will be piped to the pre-evaporator flash tank where it will flash producing steam for the pre-evaporators. A diagram is attached.

11. The incinerator is designed to burn all of the TRS gasses from the no. 3 accumulator, the black liquor pre-evaporators, the existing evaporators, the turpentine condenser, and the condensate stripper this amounts to 5,900 lbs/hr and 70.8 tons/day. The visible emission limiting standard for the incinerator would be 20%. Estimated sulfur contents of the methanol and natural gas utilized in the incinerator are 0% and 0.0006% respectively.

12. EPA recognizes in 40 CFR 60 Subpart BB that temperature monitoring is adequate to provide evidence of complete combustion in TRS incinerators. The stack being utilized for the incinerator is designed to allow outside air to be drawn into the stack for the purpose of cooling the stack gasses. Gas temperatures prior to this mixing make oxygen monitoring impractical and monitoring after mixing is unrepresentative of combustion conditions. We believe the monitoring required by EPA is adequate.

13. The test facilities on the incinerator stack are still in the process of being designed, they will be in accordance with DER specifications. We do not intend to monitor any pollutants or surrogate parameters on a regular basis with the exception of temperature in the combustion zone.

14. The buoyancy caused by temperature of the TRS contaminated gasses will cause the TRS gasses to rise to the top of a natural draft stack just as they currently rise to the top of natural draft vents. Additional information concerning flows and modeling will be provided at a later date for the contingency plan.

15. Georgia-Pacific will submit operating permit applications in a timely manner after the certification of compliance for the system. The normal process of completing the applications and receiving departmental approval takes longer than the 90 days proposed by the department. We will agree to the department's proposal with the understanding that the construction permits will automatically be extended throughout the review process.

16. The report titled "Air Quality Impact Analysis of Georgia-Pacific Corporation Palatka, Florida December 1987" is attached. This report complies with the requirements for PSD review, as we discussed them throughout the rule development.

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If we can be of assistance during the processing of these applications please telephone me at 904-325-2001 so that we can discuss the issues.

Sincerely,



Vernon L. Adams
Supervisor of
Environmental Affairs

cc: W. L. Baxter
A. Hodges
H. Hirschman
B. Mitchell
E. J. Schmidt

DER

JAN 27, 1988

BAQM

AIR QUALITY IMPACT ANALYSIS
OF
GEORGIA-PACIFIC CORPORATION
Palatka, Florida
December 1987

Prepared by:

KBN Engineering and Applied Sciences, Inc.
P.O. Box 14288
Gainesville, Florida 32604
(904) 375-8000

December 1987
87046

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1.0 INTRODUCTION

This report presents the results of an evaluation of the sulfur dioxide (SO₂) air quality impacts of the proposed burning of total reduced sulfur (TRS) gases at the Georgia-Pacific (G-P) plant located in Palatka, Florida (see Figure 1-1). The study evaluated the air quality impacts of a stand-alone TRS Incinerator complete with an exhaust stack. The analysis was conducted to determine if ambient air quality standards (AAQS) and allowable Prevention of Significant Deterioration (PSD) Class II increments for SO₂ will be exceeded when burning the TRS gases. Presented in this report are the methodology, results and conclusions of the analysis.

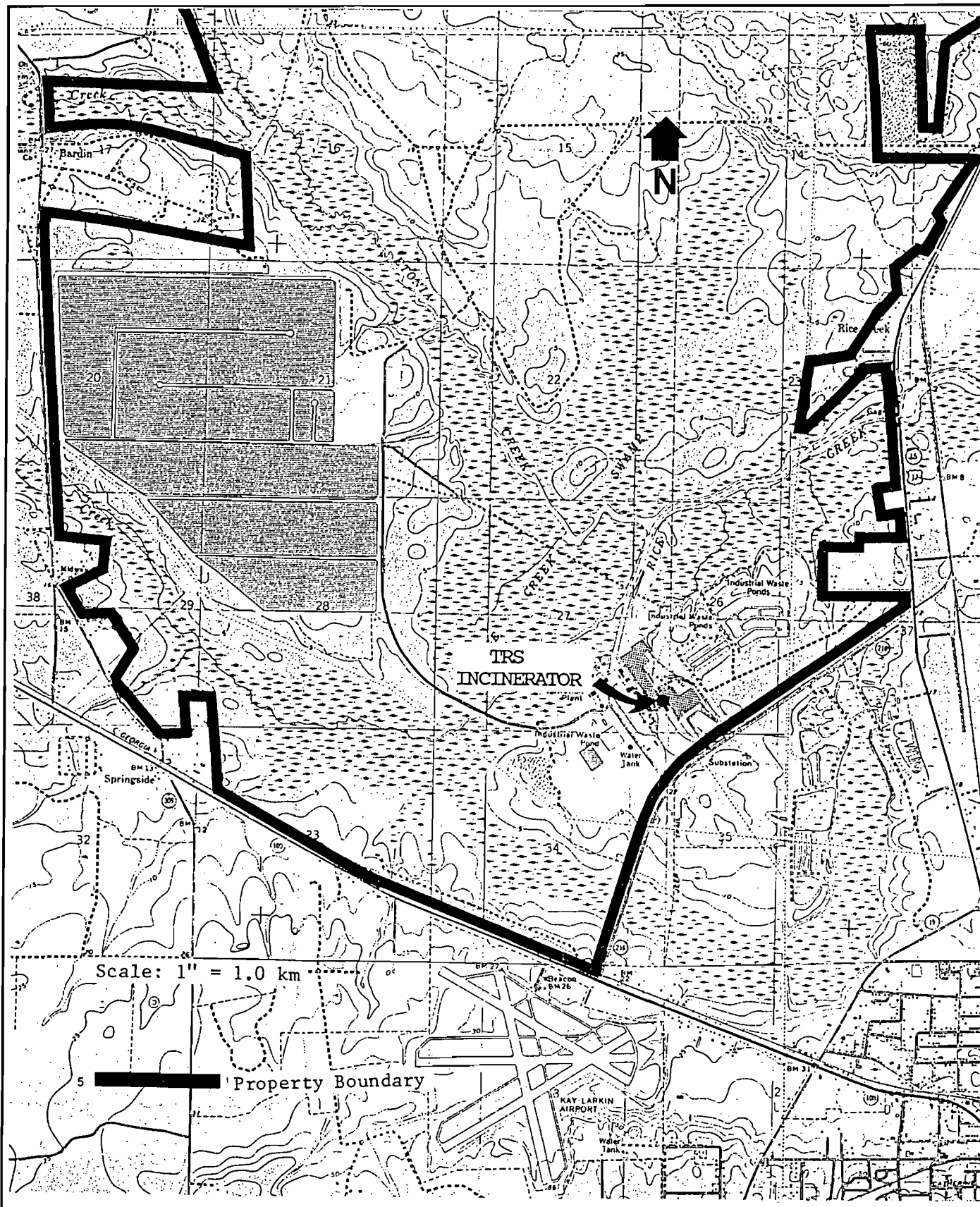


Figure 1-1. Location of the Georgia-Pacific Facility, Palatka, Florida



2.0 METHODOLOGY

The Industrial Source Complex Short-Term (ISCST) model was used to conduct the modeling analysis. The ISCST model is a steady-state Gaussian dispersion model used to calculate ground-level concentrations for continuous sources. The model requires the following inputs: source data, meteorological data, receptor data, and program control parameters. The modeling analysis was performed in screening and refined phases which effectively identified the magnitudes, locations, and time periods of the maximum predicted concentrations.

G-P provided design parameters for the TRS Incinerator, including SO₂ emission rate and stack and operating parameters (i.e., stack diameter, and gas exit velocity and temperature). The parameters used in the modeling analysis were as follows:

<u>PARAMETER</u>	<u>TRS INCINERATOR</u>
Stack height:	213 ft (65 m)
Stack diameter:	3.20 ft (0.98 m)
Gas flow rate:	21,440 acfm
Gas exit velocity:	44.4 ft/sec (13.5 m/s)
Gas exit temperature:	550 deg.F (561 deg.K)
SO ₂ emission rate:	783 lb/hr (98.7 g/s), 24-hour and annual averaging period; 1200 lb/hr (151.2 g/s), 3-hour and annual averaging period;

It should be noted that the proposed stack height will be built to an actual height of 250 ft (76.2 m). Based on the United States Environmental Protection Agency (USEPA) regulations on Good Engineering Practice (GEP) stack heights, a GEP stack height (H_G) for sources built after January 12, 1979, means the greater of:

1. 65 m, from ground elevation at the stack base;
2. $H + 1.5 L$, where H is the height of nearby buildings or structures, and L is the lesser of the height or projected width of the nearby buildings or structures; or
3. height demonstrated by a fluid model or field study.

A nearby building is defined as a building located at a distance up to 5 times the lesser of the height or width of the building, but not greater than 0.8 km from the stack. From a review of the buildings at the G-P facility and the proposed location of the TRS Incinerator stack (see Figure 2-1), the major nearby buildings at the existing G-P facility that could produce building downwash conditions include the following:

Building	Approximate Building Dimensions (ft)			Maximum Projected Width (ft)	GEP Height (ft)	Maximum Area of Influence (ft)
	Height	Length	Width			
Recovery Boiler No. 4	212	100	90	135	415	450-675
Combination Boiler No. 4/ Power Boiler No. 5 (includes building length of Recovery Boiler No.4)	110	240	80	253	275	400-550

These structures are located between 500 to 600 ft from the TRS Incinerator stack. For the directions that align these buildings with the TRS Incinerator stack, the areas of potential influence (i.e., 5 times the lesser dimension of the height or projected width) for Recovery Boiler No. 4 and Combination Boiler No. 4/Power Boiler No. 5 buildings extend out to approximately 600 and 550 ft, respectively, from these buildings. Because the proposed TRS Incinerator stack is located at a distance that is at or beyond areas of potential influence of these buildings, there is minimal or no potential for building downwash of emissions from the stack to occur. Therefore, the GEP height for the proposed TRS Incinerator stack was determined to be the de minimis height of 65 m, based on the first GEP criteria. Although the stack will actually be built to a 76.2 m height, the source cannot receive credit for a height greater than GEP in the dispersion modeling.

G-P provided information on other existing permitted sources located at the Palatka plant, permitted but not yet constructed sources, and permitted sources which have shut down. Information on other SO₂ sources in the vicinity of G-P (Seminole Electric and FP&L Palatka/Putnam) were obtained from previous modeling studies.

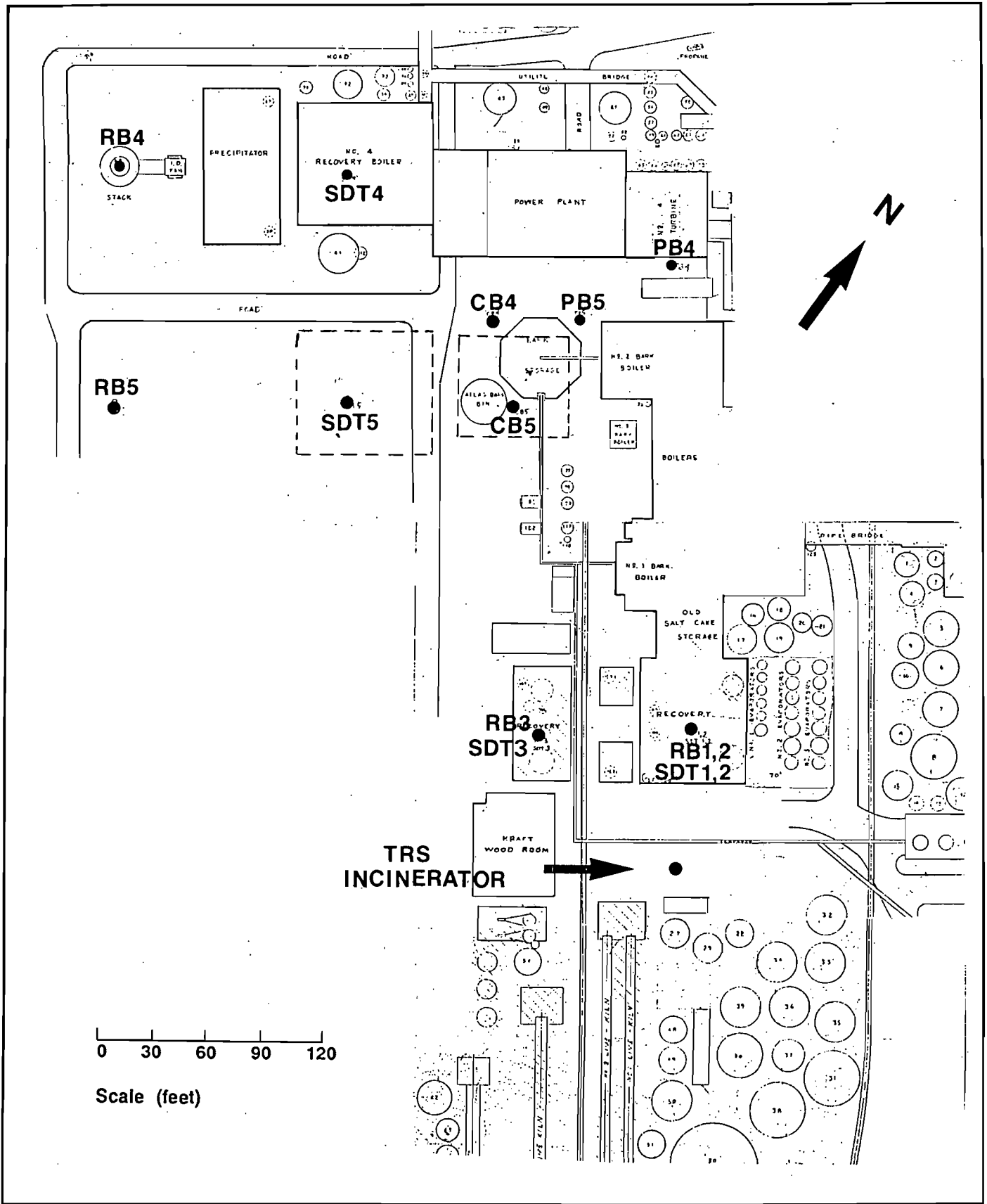


Figure 2-1. Locations of the Sources and Buildings at the Georgia-Pacific Facility



In order to reduce computational time, certain sources were eliminated or combined in the screening phase for the yearly sequential model runs. Sources which were eliminated were insignificant in terms of SO₂ emission rate. Sources which exhibited similar stack parameters and stack locations were combined. The sources considered in the screening phase of the analysis are presented in Table 2-1.

Except for the TRS Incinerator, all G-P sources and other SO₂ emission sources considered in the refined phase of the analysis are presented in Table 2-2. SO₂ emission rates, stack and operating parameters, and stack locations are shown.

For both the screening and refined phases, those sources with negative SO₂ emission rates represent older sources which have been shutdown since January 6, 1975. These sources affect PSD increments by expanding the available increment; thus, these sources were modeled as having negative emissions (increment expansion), per Florida Department of Environmental Regulation (FDER) and USEPA modeling policy. Sources which received construction permits after January 6, 1975, but are not yet operating, consume PSD increment.

For the PSD Class II increment analysis, the proposed TRS Incinerator, the sources shutdown after January 6, 1975, and those sources permitted after January 6, 1975, but not yet operating, were considered. These sources are identified in Table 2-2.

For the AAQS analysis, the TRS Incinerator, existing permitted sources, and permitted but not yet operating sources were considered. The sources considered included the Combination Boiler No. 5, Recovery Boiler No. 5, Lime Kiln No. 5, and Smelt Tank No. 5, at G-P, all of which have been permitted but have not yet been constructed.

Because the SO₂ emissions from the modeled sources account for the major permitted SO₂ sources in the G-P plant vicinity, the total concentrations predicted for the modeled sources can be compared to the AAQS. Background

Table 2-1. Emission Inventory of Sources Considered in the Screening Phase of the Modeling Analysis.

	<u>SO₂</u> <u>Emissions</u>		<u>Location, m⁺</u>		<u>Stack Data ft (m)</u>				<u>Exit Gas Conditions</u>				PSD Increment Expanding (E)/ Consuming (C) Source
	(lb/hr)	(g/s)	X	Y	Height (ft)	(m)	Diameter (ft)	(m)	<u>Temperature</u> (°F)	(K)	<u>Velocity</u> (ft/s)	(m/s)	
Recovery Boilers No. 1, 2	-119.8	-15.09	-15	30	250	76.2	12.0	3.66	202	367	28.9	8.80	E
Recovery Boiler No. 3	-68.1	-8.58	-43	7	133	40.5	11.2	3.41	210	372	23.9	7.28	E
Recovery Boiler No. 5 Smelt Tank No. 5*	299.1	37.69	-165	14	250	76.2	13.2	4.02	394	474	45.7	13.93	C
Combination Boiler No. 5	704.4	88.75	-88	64	250	76.2	12.0	3.66	351	450	50.5	15.3	C
Recovery Boiler No. 4 Smelt Tank No. 4**	321.1	40.46	-192	58	230	70.1	12.0	3.66	420	489	72.8	22.20	NA
Power Boiler No. 4	359.0	45.23	-78	110	121	37.0	4.0	1.22	394	474	47.7	14.54	NA
Power Boiler No. 5 Combination Boiler No. 4**	2,757.5	347.4	-87	88	232	70.7	9.0	2.74	443	501	56.3	17.15	NA
FPL Putnam +++	3,192.0	402.2	9,100	5,700	73	22.3	10.3	3.14	365	458	104.0	32.70	C
Seminole Electric	12,984.0	1,636.0	4,600	5,800	670	205.0	50.9	15.52	127	326	27.6	8.40	C
FPL Palatka	2,943.0	370.8	8,650	-5,700	150	45.7	13.0	3.96	275	408	39.1	11.90	NA

NA = Not Applicable

Note: Sources with negative emissions have been shutdown at G-P. Therefore, impacts from these emissions represent expansion of the allowable PSD increments.

+ Relative to proposed TRS Incinerator.

* Smelt Tank No. 5's emissions added to Recovery Boiler No. 5's emissions.

** Smelt Tank No. 4's emissions added to Recovery Boiler No. 4's emissions.

** Sources combined; emissions added together and modeled with average values of temperature and velocity from each source.

+++ 50 percent of emissions consume PSD increment.

Table 2-2. Emission Inventory of Sources Considered in the Refined Phase of the Modeling Analysis

Source	SO ₂		Location, m ⁺		Stack Data, ft (m)				Exit Gas Conditions			
	Emissions (lb/hr)(g/s)		X	Y	Height (ft) (m)		Diameter (ft) (m)		Temperature (°F) (K)		Velocity (ft/s)(m/s)	
<u>Georgia Pacific</u>												
Recovery Boiler No. 1*, No. 2*	-119.8	-15.09	-15	30	250	76.2	12.0	3.66	202	367	28.9	8.80
Recovery Boiler No. 3*	-68.1	-8.58	-43	7	133	40.5	11.2	3.41	210	372	23.9	7.28
Smelt Tank No. 1*	-1.0	-0.13	-15	30	100	30.5	2.5	0.76	199	366	24.7	7.53
No. 2*	-1.4	-0.18	-15	30	100	30.5	3.0	0.91	216	375	31.2	9.51
No. 3*	-1.4	-0.18	-43	7	109	33.2	2.5	0.76	205	369	11.7	3.57
Lime Kiln No. 1*	-1.9	-0.24	40	-73	50	15.2	4.2	1.28	262	401	17.2	5.24
No. 2*	-1.9	-0.24	34	-77	52	15.9	5.6	1.71	154	341	35.0	10.67
No. 3*	-3.8	-0.48	41	-112	52	15.9	5.6	1.71	156	342	27.8	8.47
Recovery Boiler No. 5**	293.7	37.00	-165	14	250	76.2	13.2	4.02	394	474	45.7	13.93
PSD-FI-079 BACT Combination Boiler No. 5**	704.4	88.75	-88	64	250	76.2	12.0	3.66	351	450	50.5	15.39
Smelt Tank No. 5**	5.4	0.68	-114	46	250	76.2	5.0	1.52	163	346	27.1	8.26
Lime Kiln No. 5**	10.5	1.32	-25	-146	149	45.4	4.3	1.31	172	351	54.0	16.46
Recovery Boiler No. 4	315.0	39.69	-192	58	230	70.1	12.0	3.66	420	489	72.8	22.20
Smelt Tank No. 4	6.1	0.77	-150	87	222	67.7	5.0	1.52	160	344	39.7	12.11
Lime Kiln No. 4	11.5	1.45	40	-137	149	45.4	4.3	1.32	171	350	46.8	14.27
Power Boiler No. 4	359.0	45.23	-78	110	121	37.0	4.0	1.22	394	474	47.7	14.54
Power Boiler No. 5	1564.5	197.10	-87	88	232	70.7	9.0	2.74	445	502	60.6	18.49
Combination Boiler No. 4	1193.0	150.30	-104	78	232	70.7	9.0	2.74	440	500	51.9	15.81
FPL Palatka	2943.0	370.80	8650	-5700	150	45.7	13.0	3.96	275	408	39.1	11.90
FPL Putnam**	3192.0	402.20	9100	-5700	73	22.3	10.3	3.14	365	458	104.0	31.70
Seminole Electric**	12984.0	1636.00	4600	5800	670	205.0	50.9	15.52	127	326	27.6	8.40

⁺ Relative to proposed TRS incinerator.

* PSD increment expanding sources; shutdown since January 6, 1975.

** PSD increment consuming sources. For FPL Putnam, 50 percent of emissions consume PSD increment.

concentrations (i.e., impacts from sources not modeled) are assumed to be negligible.

Based on the locations and dimensions of the existing buildings at the G-P facility, the stacks for most of the existing sources at G-P are less than GEP height. Therefore, the potential for building downwash to occur was considered in the refined phase of the modeling analysis. Building downwash conditions were modeled for those periods and receptor locations at which the highest, second-highest 3-hour and 24-hour concentrations were produced from the screening phase of the analysis.

Since the building for Combination Boiler No. 4/Power Boiler No. 5 (building denoted as "power plant" in Figure 2-1) has the greatest area of influence for potential building downwash effects in most directions, its dimensions were used for the following sources which could potentially be affected by building downwash:

1. Recovery Boiler 4
2. Power Boiler 4
3. Smelt Tank 4
4. Combination Boiler 4
5. Recovery Boiler 5
6. Power Boiler 5
7. Smelt Tank 5
8. Combination Boiler 5

Also, when modeling to determine PSD increment expansion due to the shutdown of Recovery Boilers 1, 2 and 3 and Smelt Tanks 1, 2 and 3, these sources were modeled with the associated building in existence when these sources were operating. The major influencing building had a height of 100 ft with a length and width of 90 ft.

For the screening phase of the analysis, the meteorological data used in the ISCST model consisted of a concurrent 5-year (1981-1985) period of hourly surface weather observations from the National Weather Service (NWS) station at Jacksonville International Airport and twice daily mixing heights based upon radiosonde soundings from the NWS station in Waycross, Georgia. These

meteorological data were selected due to the proximity of the weather stations to G-P. For the refined phase of the analysis, 3-hour and 24-hour concentrations were predicted for a refined receptor grid at which the highest, second-highest concentration from the screening phase was produced. The ISCST model was executed for the meteorological periods during which the highest, second-highest and associated highest concentrations were predicted from the screening phase.

For the screening phase analysis, a total of 216 receptors were located along 36 radials in a polar grid centered on the location of the proposed TRS Incinerator. Radials were located every 10° with receptors positioned at six (6) downwind distances along each radial. The downwind distances were 500, 900, 1300, 1700, 2100, and 2500 meters(m) Concentrations were predicted for those sources shown in Table 2-1. The maximum predicted ground-level concentrations occurred within the boundaries of this grid. Based on the locations of these receptors, many of the receptors are located on G-P property, particularly in directions to the south clockwise to the northeast (see Figure 1 for G-P plant property). Therefore, the maximum concentrations predicted in those areas could be excluded from comparison to ambient standards since these areas are not considered ambient air.

The refined grid consisted of seven radials, spaced 2° apart, and seven downwind distances spaced 100 meters apart. The refined receptor grids were centered on the radials and downwind distances for which maximum concentrations were predicted in the screening phase analysis.

The final model inputs required are program control parameters. For regulatory analysis to demonstrate compliance with AAQS and PSD increments, USEPA recommends the selection of certain model options. These are referred to as the "Regulatory Default" options in the ISCST model:

1. Final plume rise only;
2. Stack tip downwash;
3. Buoyancy-induced dispersion;
4. Default windspeed profile coefficients;
5. Default temperature gradients;

6. Calm wind processing; and
7. A decay half-life of 4 hours for SO₂ in urban areas.

In this analysis, the regulatory options were used to address impacts from the G-P facility. Based on a review of land use around G-P, the rural mode was selected because of minimal residential, industrial and commercial development in the area surrounding the plant.

3.0 RESULTS

The modeling analysis must demonstrate compliance with the AAQS and allowable PSD Class II increments for SO₂. These standards are as follows:

<u>Averaging Time</u>	<u>AAQS₃ (ug/m³)</u>	<u>PSD Class II Increment (ug/m³)</u>
Annual	60	20
24-hour	260	91
3-hour	1300	512

The 3-hour and 24-hour standards can be exceeded once per year at each receptor point.

A summary of the AAQS screening phase results for each year of meteorology considered and for each averaging time is presented in Table 3-1. The maximum total 3-hour, 24-hour and annual average SO₂ concentrations from the screening phase are predicted to be 666, 165, and 19.4 ug/m³, respectively. These maximum predicted concentrations are well below the 3-hour, 24-hour, and annual AAQS of 1300, 260 and 60 ug/m³, respectively.

The screening phase results for Class II PSD increment consumption are presented in Table 3-2. The maximum 3-hour, 24-hour, and annual average PSD Class II increment concentrations predicted from the screening phase are 436, 78.1, and 8.2 ug/m³, respectively. These maximum predicted concentrations are below the 3-hour, 24-hour, and annual PSD Class II increments of 512, 91, and 20 ug/m³, respectively.

Annual average concentrations were not further refined because the magnitude of annual concentrations is not expected to differ significantly from the screening results, based upon the receptor grid used in the screening analysis.

The maximum 3-hour and 24-hour average concentrations from the refined phase of the analysis, with and without the effects of building downwash, are presented in Table 3-3. The maximum total 3-hour and 24-hour average

Table 3-1. Summary of the Screening Phase Results of Maximum Predicted SO₂ Concentrations for Comparison to AAQS

Averaging ⁺ Period	Year	Concentration (ug/m ³)	Location Direction (°)	Distance (km)	Period	
					Julian Day	Hour Ending
3-Hour*	1981	666	80	0.9	132	12
	1982	637	130	0.5	215	12
	1983	649	110	0.9	241	12
	1984	646	90	0.9	67	15
	1985	584	350	0.9	94	15
-						
24-Hour*	1981	151	320	0.9	217	-
	1982	157	310	1.7	70	-
	1983	144	220	2.5	294	-
	1984	165	310	1.3	167	-
	1985	145	300	1.3	195	-
-						
Annual	1981	17.1	130	1.3	-	-
	1982	19.4	230	2.1	-	-
	1983	17.0	130	1.7	-	-
	1984	19.1	310	1.7	-	-
	1985	16.9	260	1.7	-	-

⁺ The emission rate was 1200 lb/hr for the 3-hour averaging period and 783 lb/hr for the 24-hour and annual averaging periods.

* Highest, second-highest concentration for this averaging period.

Table 3-2. Summary of the Screening Phase Results of Maximum Predicted SO₂ Concentrations for Comparison to the PSD Class II Increment.

Averaging [†] Period	Year	Concentration (ug/m ³)	Location		Period	
			Direction (°)	Distance (km)	Julian Day	Hour Ending
3-Hour*	1981	420	40	0.5	113	15
	1982	436	230	0.5	162	12
	1983	374	220	0.9	259	12
	1984	406	90	0.9	135	12
	1985	381	360	0.5	114	15
-						
24-Hour*	1981	67.6	220	2.5	44	-
	1982	63.9	230	2.5	113	-
	1983	65.4	220	2.5	44	-
	1984	78.1	210	0.9	276	-
	1985	67.5	300	0.9	195	-
-						
Annual	1981	7.0	50	1.3	-	-
	1982	8.2	230	2.1	-	-
	1983	6.8	130	1.3	-	-
	1984	8.0	310	1.3	-	-
	1985	6.9	260	1.7	-	-

[†] The emission rate was 1200 lb/hr for the 3-hour averaging period and 783 lb/hr for the 24-hour and annual averaging periods.

* Highest, second-highest concentration for this averaging period.

Table 3-3. Summary of the Refined Phase Results of Maximum Predicted SO₂ Concentrations for Comparison to PSD Class II Increments and AAQS

Averaging Period	Concentration* (ug/m ³)	Location		Period		
		Direction (°)	Distance (km)	Year	Julian Day	Hour Ending
<u>PSD Class II Analysis⁺</u>						
3-Hour	378.0	234	0.5	1982	162	12
24-Hour	78.5	212	1.0	1984	2	-
- - - - -						
<u>AAQS Analysis^{**}</u>						
3-Hour	609	80	0.7	1981	132	12
24-Hour	182	308	1.3	1984	99	-

* Highest, second-highest concentration.

⁺ By modeling with building downwash conditions, the maximum 3- and 24- hour average concentrations are predicted to be 378 and 77.2 ug/m³, respectively.

^{**} By modeling with building downwash conditions, the maximum 3- and 24-hour average concentrations are predicted to be 609 and 210 ug/m³, respectively.

concentrations for all sources, without building downwash conditions are predicted to be 609 and 182 ug/m^3 , respectively, which are 47 and 70 percent of the respective AAQS. By including the effects of building downwash conditions, the maximum 3-hour and 24-hour average concentrations are 609 and 210 ug/m^3 , respectively, which are well below the AAQS.

For comparison to the PSD Class II increments, the maximum 3-hour and 24-hour average concentrations are predicted to be 378 and 78.5 ug/m^3 , which are 74 and 86 percent of the respective maximum allowable increments. By including the effects of building downwash conditions, the maximum 3-hour 24-hour average concentrations are 378 and 77.2 ug/m^3 , respectively.

4.0 CONCLUSIONS

The air dispersion modeling analysis demonstrates that the allowable PSD Class II increments are the most restrictive standards in regard to the SO₂ emissions from the proposed TRS Incinerator at the G-P. The modeling analysis also demonstrates that, based upon the design stack, operating and SO₂ emissions data, maximum SO₂ emissions due to the TRS Incinerator will comply with both allowable PSD Class II increments and AAQS.

P 274 007 585

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

U.S.G.P.O. 1985-480-794

PS Form 3800, June 1985

Sender Mr. Henry Hirschman	
Street and No. Georgia-Pacific Corp. P.O. Box 919	
P.O., State and ZIP Code Palatka, FL 32077	
Postage	S
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	S
Postmark or Date Mailed: 12-18-87	
Permits: AC 54-142282 - -142288 & -142290 to -291	

PS Form 3811, July 1983 447-845

DOMESTIC RETURN RECEIPT

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

- Show to whom, date and address of delivery.
- Restricted Delivery.

3. Article Addressed to: Henry Hirschman, G.M.
Georgia-Pacific Corporation
P.O. Bix 919
Palatka, FL 32207

4. Type of Service:	Article Number
<input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail	P 274 007 585

Always obtain signature of addressee or agent and DATE DELIVERED.

- Signature - Addressee -
X Georgia-Pacific Corp
- Signature - Agent
X J. Brown
- Date of Delivery
12/23/87
- Addressee's Address (ONLY if requested and fee paid)

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ
GOVERNOR
DALE TWACHTMANN
SECRETARY

December 18, 1987

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Henry Hirschman
General Manager
Georgia-Pacific Corporation
P.O. Box 919
Palatka, Florida 32077

Dear Mr. Hirschman:

Re: Permit Applications for No. 3 Digesting Accumulator Tank, Black Liquor Pre-evaporators, No. 1 Black Liquor Evaporator Set, No. 2 Black Liquor Evaporator Set, No. 3 Black Liquor Evaporator Set, No. 4 Black Liquor Evaporator Set and Concentrator, Condensate Stripper, Turpentine Condenser, Incinerator, Nos. AC 54-142282, -142283, -142284, -142285, -142286, -142287, -142288, -142290, -142291.

Your applications for the above referenced construction permits were received on November 20, 1987. We have reviewed these applications and find them to be incomplete. In order to continue processing your applications, we will need the following requested information. Please show all calculations, state and justify all assumptions, and provide copies of all documentation.

Emission calculations are to include all pollutants listed in Table 500-2 of Florida Administrative Code (FAC) Chapter 17-2 and PM₁₀. Emission rates prior to each change are to be maximum actual hourly (pounds per hour and tons per year) and emission rates after each change are to be maximum hourly (pounds per hour and tons per year). Operation rates prior to each change are to be maximum actual hourly and operation rates after each change are to be maximum design capacity. You will need to provide the above information. For all changes in emissions and/or operation rates, please provide and show derivations of all process input rates, control efficiencies, emissions, and gas flow rates (ACFM, DSCFM, temperature, percentage water vapor, FPS, and stack height). NOTE: Gas flow rates and control efficiencies are to be calculated on the same basis as operation rates and emissions. If 3-hour, 12-hour, and 24-hour operation, emission and gas flow rates are lower, you will need to quantify these and explain the physical limiting factors.

Mr. Henry Hirschman
Page Two
December 18, 1987

1. Please provide complete descriptions of these existing sources, all proposed changes, and the equipment that you propose to install. This is to include, but not be limited to the number, type, make, model, maximum hourly capacity, etc. for each. Provide a complete description of the proposed NCG system. Also, you will need to provide a complete diagram of the proposed NCG system which identifies the emission points that will be controlled, those emission points that will remain uncontrolled, the control device and the location of all vents.
2. We note that the operation rates of the digester systems (which by definition includes the hot water accumulators and turpentine condensers) and the multiple effect evaporator systems (which by definition includes the concentrator) have substantially increased. Please describe all physical changes to and changes in the method of operation of these systems that have occurred since September 24, 1976. Give the date of each change. For all affected sources within the mill separately quantify the changes in operation rates, gas flow rates, and emissions.
3. For all affected sources within the mill, please separately quantify the changes in operation rates, gas flow rates, and emissions that are expected to result from the proposed changes. Please fully explain the effect of each change on these parameters.
4. Please provide a demonstration showing that the proposed collection system will be adequate to handle all of the gases generated when all affected sources are operating at their maximum operation rate. You will also need to provide a demonstration that the control device will be capable of achieving the required TRS reduction when all affected sources are operated at their maximum rates. Please quantify the maximum operation rates of each source for which the NCG system is designed and explain what happens when these operation rates are exceeded. Quantify the emissions that would be expected to result.
5. Since the hot water accumulator is to be replaced, we will need a complete reconstruction analysis pursuant to the requirements of 40 CFR 60.15 and the attached copy of EPA's letter of October 23, 1987. The analysis is to include the proposed changes and all of those which have occurred since

Mr. Henry Hirschman
Page Three
December 18, 1987

September 24, 1976. All costs are to be expressed in 1987 dollars.

6. We note from your application that new equipment is proposed. The proposed condensate stripper will be an NSPS source and the emissions will trigger a full PSD review. The installation of the proposed pre-evaporators will cause the four multiple effect evaporator sets (including the concentrator) to become NSPS sources. While this will not substantially alter the applicable emission limitation, the resulting emissions increase will trigger a full PSD review. Explain whether it is your intention to undergo a full PSD review. Provide the information required to support your explanation.
7. Please fully explain what happens to the relief gases from the number 12 and number 13 digester systems. Also, explain what happens to the relief emissions from all of the digester systems when hardwood is cooked. It is not clear whether the use of hardwoods were considered in your calculations. Please explain and recalculate the changes in operation rates, gas flow rates, and emissions if there would be increases above those indicated in your application.
8. Please explain how the proposed condensate stripper will be used to separate methanol for use in the incineration device. Explain where the unstripped condensate is to be used in the mill, identify the sources affected, and quantify the changes in operation rates, gas flow rates, and emissions from each. Provide this information for the stripped condensate. We will need ultimate gravimetric analyses of the stripped and unstripped condensate as well as the pH of each. Also, identify the source of steam for and the quantity of steam to be used in the condensate stripper.
9. Provide diagrams showing the flows of steam and/or vapor, black liquor, and condensate through the multiple effect evaporator system (including the concentrator and proposed pre-evaporators) before and after the proposed changes. Also, explain how the four multiple effect evaporator systems at your mill can each handle 25% of the black liquor and how each produces the same emissions. The capacities of the systems are substantially different.

Mr. Henry Hirschman
Page Four
December 18, 1987

10. Please explain how the proposed hot water accumulator will supply heat to the proposed pre-evaporators. Provide a diagram showing how you proposed to connect the systems.
11. Please quantify the maximum pounds/hour and tons/day of gas that the proposed incineration device would be designed to treat. Explain and quantify the visible emissions limiting standard that the proposed incinerator will be designed to comply with. We will need to know the sulfur and nitrogen contents of the methanol and natural gas that you propose to burn.
12. You will need to provide more detail concerning your request for an exemption from the applicable oxygen monitoring requirements for the proposed incinerator. Please fully explain alternative locations for the oxygen monitor, alternative procedures for determining oxygen at the point of combustion, surrogate parameters that could be used to provide the same assurance, and the installation of a TRS CEM. Be sure to include the costs and technical limitations associated with each.
13. Please provide diagrams showing the location of proposed test facilities and provide a list of the pollutants and surrogate parameters to be monitored.
14. Your application indicates that emissions of TRS gases will be vented through a tall stack in the event that the incineration device is out of operation. Please explain how uncontrolled TRS gases which are heavier than air will rise to the top of a natural draft stack. We will need gas flow rates and maximum emissions for the proposed method of mitigating ambient air quality impacts. You will also need to provide models showing the ambient concentrations of all pollutants that would be expected to result if your proposal were implemented. We can not fully approve your proposal as a contingency plan without all of the information requested in FAC Rule 17-2.600(4)(c)1.c. but a full contingency plan is not required for approval of these applications.
15. The dates for completion of construction extend well beyond those allowed by the rule. The Department already plans to condition construction permits to expire 90 days after full compliance is to be achieved. This is to allow time for the operation permit applications to be processed. You will need to provide more information to support your request.

Mr. Henry Hirschman
Page Five
December 18, 1987

16. We have not received the ambient air quality standards (AAQS) analysis and PSD increment consumption analysis referenced in your application. We will need these analyses for reasonable assurance that no ambient air violations will occur. In addition, based on the present application, a full PSD review pursuant to all requirements of FAC Rule 17-2.500 (Prevention of Significant Deterioration) is required based on emission increases above those required to meet the TRS rule. This PSD review needs to be submitted before review of your applications can proceed.
17. Please review your applications and check all associated calculations, make corrections where necessary.

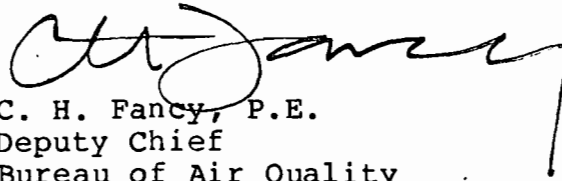
We have examined your applications in order to determine whether or not the correct permitting fee has been submitted. If the proposed addition of the pre-evaporators is considered a modification to all four evaporator sets and the turpentine condenser and No. 3 accumulator tank are by definition part of the digester systems--then we would propose to consider the applications for the pre-evaporators and multiple effect evaporators as one application, and the applications for the No. 3 accumulator tank and turpentine condenser as one application. Do you concur?

We will proceed to process your applications upon receipt of the requested information. Since all of the affected sources included in the applications are interrelated in their operation, we do not propose to proceed with the issuance of the permits until the application for each of the sources is complete. We respectfully request your formal concurrence with this procedure so that we can issue appropriate and valid permits that will prevent future misunderstandings about the permitted sources.

Mr. Henry Hirschman
Page Six
December 18, 1987

If you have any questions or wish to meet with us, please call Bill Thomas at (904) 488-1344, or write to me at the address above.

Sincerely,



C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

CHF:MH:jw

cc: David Buff, P.E.
Vernon Adams
William Stewart



23 Oct. 87
Atlanta, GA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

4APT-AC

OCT 23 1987

Mr. William A. Thomas, P.E., Administrator
Central Air Permitting
Florida Department of Environmental
Regulation
Bureau of Air Quality Management
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

DER
OCT 26 1987
BAQM

Dear Mr. Thomas:

As requested in your letter of September 24, 1987, we have reviewed the planned renovations to the No. 6 Recovery Furnace at St. Joe Paper Company's Port St. Joe, Florida facility. The planned renovation for the No. 6 Recovery Furnace includes: increasing the firing rate from 900,000 lb per day of black liquor to 1,200,000 lb per day; replacing the direct contact evaporator with an indirect contact evaporator; renovating the wet-bottom ESP to increase particulate removal efficiency; and renovating the wet-bottom portion of the ESP.

Your letter contained various statements and conclusions regarding the possible application of New Source Performance Standards (40 CFR Part 60, Subpart BB) and Prevention of Significant Deterioration (PSD) to the recovery furnace after it has been renovated. We are providing the following response regarding your conclusions.

Applicability of 40 CFR Part 60, Subpart BB

An existing facility can become subject to the applicable provisions of New Source Performance Standards (NSPS) if it is either modified or reconstructed. Modification is addressed in 40 CFR §60.14, which states that any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification. Reconstruction is defined in 40 CFR §60.15. In order for an existing facility to be considered reconstructed, the fixed capital cost of the new (replacement) components must exceed 50 percent of the fixed capital cost of a comparable, entirely new facility.

Based on the information provided and in the literature, we believe that the Total Reduced Sulfur (TRS) emission rate from the recovery furnace should decrease. Therefore, the facility would not become subject to the TRS standard of Subpart BB because a modification would not have occurred.

Removing the direct contact evaporator and increasing the firing rate of the recovery furnace will increase the amount of particulate to the ESP, however, the renovated ESP should have a higher particulate removal efficiency. This combination makes it unclear whether the particulate emission rate will increase, decrease, or remain the same.

St. Joe Paper Company's basis for demonstrating a decrease in the particulate emission rate is not acceptable. Their estimate of the particulate emission rate before renovation is based on the current particulate standard for the No. 6 Recovery Furnace. Previous test data (July 26, 1976) indicates that the actual particulate emission rate was 14 percent of the standard. This indicates that an increase in the particulate emission rate will occur after renovation if the renovated ESP emits particulate at the level that the ESP vendor guarantees.

A determination of the applicability of the particulate emission standard of 40 CFR Part 60, Subpart BB because of modification can only be made by a comparison of test data from before and after the renovation. Although St. Joe Paper Company contends that test data obtained before the renovation is not valid because the test methods utilized did not meet today's criteria in Method 5, we believe that the test data generated from these tests are the best estimate of actual emissions before the renovation. When tests are conducted after the renovation, we propose that the test method that was utilized before the renovation be employed so that comparable results can be obtained. For example, if aluminum thimbles were used to collect particulate during the tests before the renovation then they should be utilized for the tests after the renovation. This testing methodology would be used only for comparative purposes and not for compliance determinations.

The information provided to substantiate that reconstruction (as defined in 40 CFR §60.15) will not occur is not acceptable since we could not determine the exact cost basis for the estimate. The December 16, 1985, preamble to the reconstruction regulations defines fixed capital cost as the capital needed to provide all the depreciable components, including the costs of engineering, purchase and installation of major process equipment, contractor fees, instrumentation, auxiliary facilities, buildings and structures. In addition, costs associated with the purchase and installation of air pollution control equipment are only included in the fixed capital cost to the extent that the equipment is required as part of the manufacturing/operation process. The reconstruction regulation also specifies that the entirely new facility must be comparable to the planned renovated facility.

The fixed capital cost of the renovated recovery furnace and the entirely new facility must be detailed and revised to include the items referenced above. In addition, we request that the cost of retrofitting the wet-bottom ESP and a comparable entirely new wet-bottom ESP be included as separate cost items. The cost associated with the wet-bottom ESP may be included in the fixed capital costs if it is determined that it is required as part of the operating process.

The fixed capital cost for the entirely new facility included the cost of a cascade evaporator (direct contact evaporator). This cost can not be used because the planned renovated facility will not include a cascade evaporator.

When you receive the revised reconstruction costs of the facility, we would appreciate the opportunity to review this information.

We are in agreement with you that an increase in the smelt feed rate to the smelt tanks does not necessarily make the smelt tanks subject to NSPS. If the smelt tanks were originally designed to accommodate the higher feed rate then the smelt tanks would not be considered modified. However, Mr. Mike Harley of your office indicated that the practice of recirculating green liquor back to the smelt tanks will cease in order to accommodate the increased smelt feed rate. We view this as an operational change (as cited in 40 CFR §60.14) to the smelt tanks. Therefore, the smelt tanks will become subject to 40 CFR Part 60, Subpart BB because the operational change will increase the TRS emission rate.

Increasing the design capacity of an existing facility does not necessarily subject the existing facility to NSPS. In order for the existing facility to become subject to NSPS, an increase in the actual (not allowable) emission rate of a pollutant to the atmosphere for which a NSPS standard applies would have to accompany the increase in the design capacity. Either AP-42 factors or actual emission tests can document the change in the emission rate. If the facility owner or operator does not inform you of the increase in design capacity of the facility and an increase in the actual emission rate of a regulated pollutant occurs, then the facility owner or operator would be in violation of NSPS from the time that the design capacity was increased.

Applicability of PSD Regulations

In your letter, you stated that the reactivation of the No. 6 recovery furnace will not trigger a full PSD review. EPA agrees in part with this determination.

It is current EPA policy that if a source can demonstrate, to the satisfaction of the Administrator, that the shutdown of a unit was not intended to be of a permanent nature, PSD review would not apply to that unit's reactivation. Recovery furnace No. 6 has been on cold standby for the last 9-1/2 years. However, the company has maintained a continuous state operating permit and has made it clear that the unit was not permanently shutdown. Therefore, the mere startup of recovery furnace No. 6 would not trigger new source review.

However, since the company is proposing to make physical and operational changes to recovery furnace No. 6 prior to reactivation, some change in previous emission levels may occur. It cannot be determined from the available information whether or not this modification would cause a "significant" net emissions increase and subject the renovated No. 6 recovery furnace to PSD requirements. In order to assess whether a major modification will occur, the increase in emissions over previous actual emission levels will need to be projected. For TRS, the new emissions change should be negative due to the increased capability of the recovery boiler to control TRS emissions and the removal of the direct contact evaporator. However, for particulate emissions, pre-shutdown test data should be compared to estimated post-startup emission levels. (Note that PM₁₀ emissions may also need to be addressed). In addition, the net emissions change for other pollutants

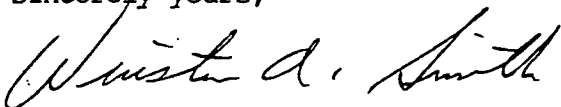
(SO₂, NO_x, CO, etc.) will have to be determined. The emissions charges associated with the appropriate smelt dissolving tank should also be included in the net emissions calculations. If a "significant" net emissions increase of any pollutant occurs as a result of the physical changes to the No. 6 recovery furnace, then PSD would apply to the reactivation/modification.

You stated in your letter that the PSD review for the No. 9 power boiler did not include emissions from the No. 5 or the No. 6 recovery furnaces. Since these two units were on cold standby at the time of the PSD application for the No. 9 power boiler, the actual emissions of these units were assumed to be zero and were not included in any ambient impact analyses. EPA guidance specifies that when modeling multi-source areas to determine compliance with short-term and annual ambient standards, nearby background sources should be modeled using the following: maximum allowable emissions, actual or design capacity (whichever is greater), and time periods which represent continuous operation. Even though both recovery furnaces No. 5 and No. 6 were not operating, they both had valid operating permits and should have been included in the PSD modeling for power boiler No. 9 at their allowable emission rates and design capacities.

In order to allow the reactivation of recovery furnaces No. 5 and No. 6, ambient analyses must be performed to validate the previous PSD review. If both recovery furnaces were in existence on the baseline date, these units would not contribute to increment consumption and therefore any increment modeling done in conjunction with the No. 9 power boiler's PSD application would be preserved. However, emissions from these two units will affect the results of the ambient standard analysis. As you have proposed in your letter, modeling analyses should be done for recovery furnaces No. 5 and No. 6 to ensure attainment of the ambient particulate standard. All charges in particulate emission levels due to the reactivation of these sources (including any increase from the modification of recovery furnace No. 6 and any increases from the smelt dissolving tanks) should also be included in the ambient analysis.

Thank you for the opportunity to review this source modification package. If we may be of further assistance to you or your staff, please contact us. Any questions regarding NSPS, may be addressed to Paul Reinermann at 404/347-2904. If you have any questions regarding PSD, please contact Janet Hayward at 404/347-2864.

Sincerely yours,



Winston A. Smith, Director
Air, Pesticides and Toxics
Management Division

Copied: CHF / BT

Bruce Mitchell

Mike Harley

Betsy Pittman / Mark Zilberberg



Georgia-Pacific Corporation *Palatka Operations*
Southern Pulp & Paper Division
P.O. Box 919
Palatka, Florida 32078-0919
Telephone (904) 325-2001

November 16, 1987

Mr. Bruce Mitchell
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Bruce:

Please find enclosed four copies of Georgia-Pacific's TRS Compliance Plan and Construction Permit Applications. We appreciate the departments understanding and approval of the delayed submittal. As we discussed by phone the applications would have been submitted on time on November 12th if the FDER air section and the USEPA had not decided to hold a surprise audit of our facility on November 11th and 12th.

If you have any questions please call me.

Sincerely,

Vernon L. Adams
Supervisor of Environmental Affairs

/mb

Enclosures

cc: W. L. Baxter
D. A. Buff
A. D. Dumas
H. Hirschman
E. J. Schmidt - Atlanta 9

DER

NOV 20 1987

BAQM

1000.00	11-16-57
1000.00	Spoke
500.00	V. Adams
500.00	10.55
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1000.00	
	4000.00
	2000.00
	750.00
	<u>6750.00</u>

✓ for to be sent

A T/Y Above
Norm Print

	SO ₂ control	TRS uncontrol
Dig.	139.2	74.0
Pre-Evap	66.9	35.6
MEE 1	27.4	14.5
MEE 2	19.8	10.5
MEE 3	19.8	10.5
MEE 4 & Con.	27.4	14.5
Cond. Stripper	332.0	176.4
Tarp. 595	46.1	24.5

COPY W/
NOTES

TRS COMPLIANCE PLAN AND
CONSTRUCTION PERMIT APPLICATIONS
Georgia-Pacific Corporation
Palatka, Florida
November 1987

Incinerator
Condensate Stripper NSPS

Expiration dates Nov. 12, 1989, op. applic 8/12/89, Lerb compl 5/12/89
3-hr avg 24-hr avg Semissions - sed is 12-hr

- Reconstruction Digester, 2 chngs 2 evaptr systems since 9/24/86
- Reconstruction Evaptr 3
- ✓ No. of blows per day Max. No. accum. designed for
- ✓ How does this compare 2 ee 2 existing h₂O accumulators

Explain how ht entered dig gas 2 pre-evap. How many effects? How many bodies? How many pre-evap? Describe type, provide illus. Make, Model, Type where is evap. condns ~~see~~ 85% sent in process of what probably happens to condns? What will effect on emssns BY

- ✓ lbs BLS / TADP chngd sbstantlly since '84 why?

How emitters of different size all emit same amt of smoke when all 4 are size each capable of handling 25% of flow?

And max. h₂ly imp & pred cts. Explain factors in emg imp cts for log time frames

- And max h₂ly emssns of each plant listed in table 500-2 of FAC Ch. 17-2.
- B4 & after installation of the proposed systems & controls.
- Will install of the proposed systems cause or affect emssns, or oper cts be in any other ways needed.

I have been asked to identify each step in the process of the MEE system and to provide a description of each step.

We have reviewed the application of insertion points & install a TRS emission control system
4 categories (including all components of the system & FAC Rule 17-2.100C)
the No. 1, 2, 3, & 4 MEE emission systems (including the existence of additional effects
of emission), an NSPS emission control system, & a new incineration system.

4. We have reviewed the above defined insertion points we need on
11/1/87. We have reviewed these applications & find them to be incomplete. Processing
of these applications will come upon receipt of the revised information. Please show all
calculations, see all assumptions, & provide all details.

4. Please note that the account books are a part of each digester process & FAC Rule 17-2.100C.
That the replacement of the existing account books with a new account book is a
modification to the No. 1-13 digesters. A cost-benefit analysis pursuant to 40CFR 60.15 with
respect to the replacement of the existing account books have substantially exceeded above the
level of the NSPS emission points & the 1984 NSPS. We also note that the lbs BLS/TADP
has increased since the 1984 NSPS. Please describe all changes to the method of operating the
digesters & changes to the digester system to have occurred since 9/24/76. It will not
be necessary to submit a max. actual emissions of each plant listed in Table 300-2 of FAC
Ch. 17-2 to be calculated for each change. To actual emissions & B provided per each change
to the maximum & B provided after each change. The emissions & B provided maximum lbs/hr
& TADP & will need to provide a cost-benefit analysis pursuant to 40CFR 60.15 to be
submitted by 1987 dates. Please compare the size of the proposed new account books & the
to the proposed replacement of the existing account books & all changes since 9/24/76. All cases R & B
to the proposed replacement of the existing account books, physical dimensions, max. blws/day, & blws/hr,
& max. emissions blws to air B provided. Explain what happens when the max. values are exceeded.
Please provide a description & diagram of the account books & the proposed replacement of the existing
account books.

4. The proposed addition of the pre-emitters will provide additional effects of emission to be
No. 1, No. 2, No. 3, & No. 4 MEE systems (which by definition in FAC Rule 17-2.100C) include
the incineration process & the definition of No. 1, No. 2, No. 3, & No. 4 MEE systems including the
incineration will be subject to the federal NSPS. The federal NSPS emissions & B substantially be the same as
to the existing source standards. Please provide the name, model, type, & maximum capacity of
the pre-emitters & the proposed installation. We will need to know how many effects &
lbs B & B included in the proposed pre-emitters. How many pre-emitters do you propose to
install. Also, please provide a description & diagram of the proposed pre-emitters. Please explain
how the heat will be transferred from the digester system to the proposed pre-emitters. Please explain
what will happen if the NSPS & each source of the 4 proposed pre-emitters. Please
provide a quantity of the emissions generated as a result of pre-emitter operation, describe how it is used
55% generated will be proposed pre-emitters will be used. Please explain how the emissions
generated will be used & give us the pH. Quantify the effect to the use
of the emissions will live on maximum emissions of each plant listed in Table 300-2
of FAC Ch. 17-2 in lbs/hr. & TADP. Please provide a cost-benefit analysis of the
proposed pre-emitters & its pH. How many emissions blws,
blws/hr, & blws/day will be proposed pre-emitters B provided & included up & heat
from. What will happen if this number is exceeded.

4. The operation of the No. 1, No. 2, No. 3, & No. 4 MEE systems including the incineration have
substantially exceeded above the level of the NSPS emission points & the 1984 NSPS. Please
describe all changes to the method of operating each of the MEE systems & changes to each
of the MEE systems to have occurred since 9/24/76. It will not be necessary to submit a max. actual
emissions of each plant listed in Table 300-2 of FAC Ch. 17-2 to be calculated from each
change. To actual emissions & B provided per each change to the maximum & B provided
after each change. The emissions & B provided maximum lbs/hr & TADP & will need to provide a
cost-benefit analysis pursuant to 40CFR 60.15 to be submitted by 1987 dates. Please compare the size of the
proposed pre-emitters & the existing account books & all changes since 9/24/76. All cases R & B
to the proposed replacement of the existing account books, physical dimensions, max. blws/day, & blws/hr,
& max. emissions blws to air B provided. Explain what happens when the max. values are exceeded.
Please provide a description & diagram of the proposed pre-emitters. Please explain how the heat will be
transferred from the digester system to the proposed pre-emitters. Please explain what will happen if
the NSPS & each source of the 4 proposed pre-emitters. Please provide a quantity of the emissions
generated as a result of pre-emitter operation, describe how it is used 55% generated will be
proposed pre-emitters will be used. Please explain how the emissions generated will be used & give us
the pH. Quantify the effect to the use of the emissions will live on maximum emissions of each plant
listed in Table 300-2 of FAC Ch. 17-2 in lbs/hr. & TADP. Please provide a cost-benefit analysis of the
proposed pre-emitters & its pH. How many emissions blws, blws/hr, & blws/day will be proposed
pre-emitters B provided & included up & heat from. What will happen if this number is exceeded.

OVERVIEW

Georgia-Pacific Corporation (G-P) of Palatka, Florida, has selected incineration as the method of complying with the state of Florida's TRS regulations, which are contained in Florida Administrative Code, Rule 17-2.600(4). An overall flow diagram of the plan is presented in Figure 1, and a plot plan of the facility indicating locations of TRS sources is presented in Figure 2. TRS emissions from the digesting system accumulator tank, black liquor pre-evaporators, black liquor evaporators, black liquor concentrator and turpentine condenser will be collected and sent to a TRS incinerator for destruction. A new digester accumulator tank will replace the two existing digester accumulator tanks. The black liquor pre-evaporators will be added to the existing black liquor concentrating system to provide more efficient concentration of the black liquor before burning in the recovery boiler.

A condensate stripper will also be added to strip TRS from the black liquor pre-evaporators condensate stream and turpentine condenser condensate stream. The gas stream from the stripper will be routed to the TRS incinerator for destruction. Methanol will also be recovered in the stripper. The recovered methanol will be used as fuel in the TRS incinerator.

The recovery boiler and lime kiln at the G-P mill are currently in compliance with the TRS regulations. No changes will be made in the operation of these sources.

The TRS incinerator will convert TRS in the gas streams to sulfur dioxide (SO₂). An air quality impact analysis has been prepared which addresses compliance with air quality standards for SO₂.

N. max. the the & T.H. P's xpla hw ech of ee 4 MEE evprtr sts cn accommodate 25% of ee tot BL flw whn ee except 4 ee No. 4 MEE st is almost 2 ee of ee No. 1 MEE st, & is 5 wht grtr thn ee No. 2 & No. 3 MEE sts. P's xpla hw ee 4 evprtr sts & ee concentrator can handle a grtr qty of BL thn ee digesters can produce in te ppsd pre-evprtr cn produce. U will also nd 2 xpla hw 4 sts of MEE with diffent cpts cn produce te same qty of emssns, espilly whn te emssns frn 1 MEE st also Nolds ee concentrator.

How many bdes & evprtr effects do te No. 1, No. 2, No. 3, & No. 4 MEE sts edh presently consist of? How many concentrators R presently Nstlled @ U mill? How many evprtr effects & bds R Nstlled Nlch concentrator? P's provide te mke, mll, & type of ech MEE evprtr st & concentrator presently. It is presently Nstlled @ U mill. We will also nd te max. gas vol. (ACFM) ee ech

of the MEE SES will ent 2 the proposed NCG handling system. ^{Specify} Quantity of lbs of H₂O & captured/lb. of sets Np 4 cur present evap'n system & 4 the evap'n system as a pipe 2 modify it. A diagram showing flows of steam, vapor, & black liq thugh the evap'n system beth B4 & after the proposed change is added.

7 The proposed condense stripper will be an MSPS since subject 2 40 CFR 60 subpart BB. Please describe the proposed condense stripper & its operation. Provide the make, model, & type of condense stripper to be used with diagrams showing how it will operate. Explain how H₂O will be separated from the condense stripper. ~~What will be the auxiliary steam used in the condense stripper B.N. boiler & B. boiler?~~ Please identify the minimum sources that will furnish condensate to the condense stripper & quantify the maximum lb/hr that each will provide. Please provide an alternate gravity analysis of the total condensate if it is to be stripped & the ratio. Please provide an alternate gravity analysis of the stripped condensate & septa. Explain why the stripped condensate will be used in the process. Quantify the effect of the use of stripped condensate & operation of the emissions of each plant listed Table 500-2 of FAC Ch. 17-2. The maximum R 2 B expected in maximum lb/hr & T14. ~~Please identify each affected source N. The millhouse acid operation will be affected. Quantify the change in operation of each affected source. It will also not provide the maximum ASME to be condensed stripper with only 2 to NCG system.~~

8 Please explain what happens to the digester if gas is when headward is processed & what happens to the effluent emitted by the No. 12 & No. 13 digesters. Explain how these effluents will be controlled & will not quantify the emissions of each plant listed in Table 500-2 of FAC Ch. 17-2 prior to & after installation of the required controls. The operation of the affected digesters & associated turp. condensate system appear to have occurred above these specified limits. Normal operation points & the 184 Nvetry. The turp. condensate system is a piece of the beach digester system present to the definer in R17-2.100 (). My responses concerning changes to the digester system since 9/24/86 & the emissions will also not include the turp. condensate system.

Please explain what happens to the digester if gas is when headward is processed & what happens to the effluent emitted by the No. 12 & No. 13 digesters. Explain how these effluents will be controlled.

control efficiencies
 Pls shw all derivns of all proc Npb rtes & emssn rtes. U will nd 2
 stte, jstfy, & demnt all assumptns. Te max. gs flws frm ech prnttd
 srce z

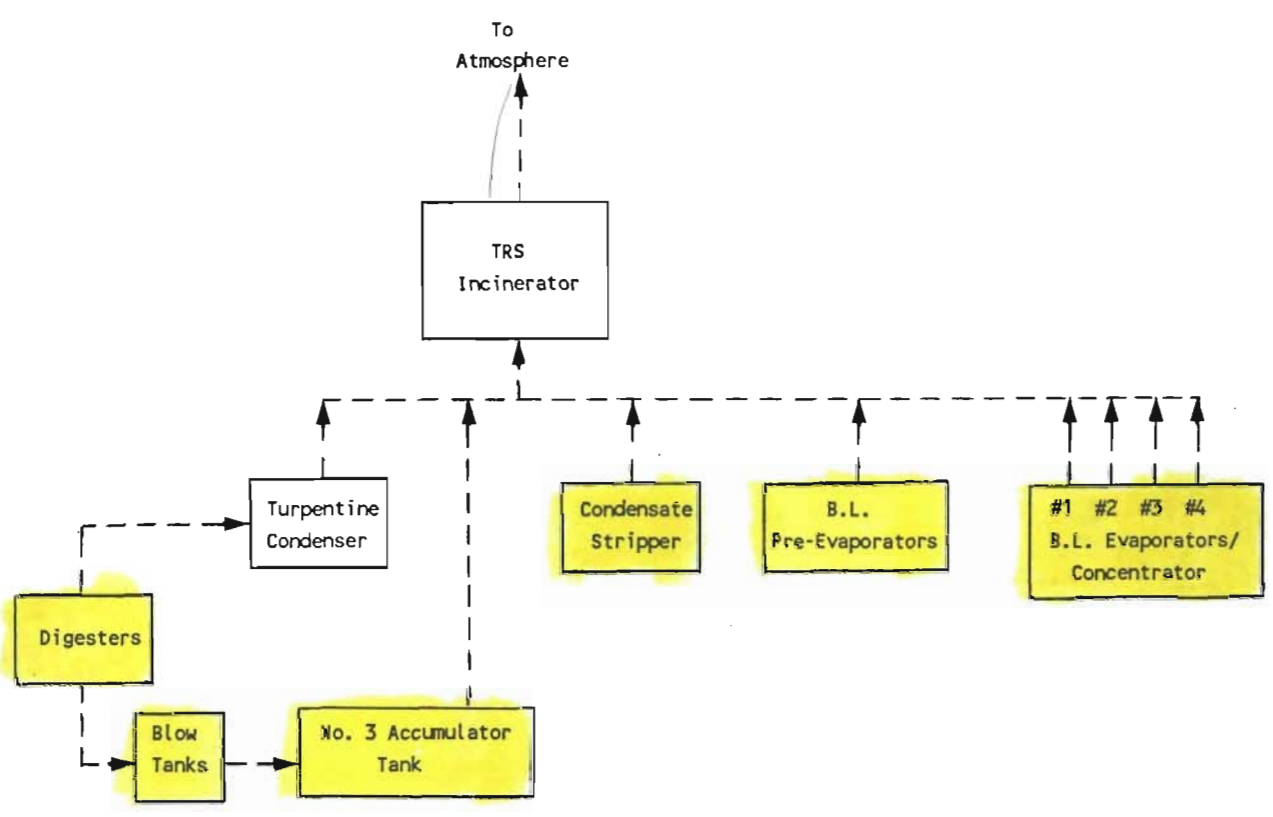


Figure 1. Flow Diagram of Overall TRS Compliance Program, G-P Palatka Mill

presently
 Te opern rtes of te dgsters (whch by dfntn Nclde te accmltr tanks &
 turp. condncr system) and ech of te MEE stes (whch by dfntn Nclde te
 clncrtrr appr z hve sbstntilly Ncrsd abve thse spcdl N te MEE opern
 prntes & te 084 Numbeg. Pls descrb all chngs N te methd of operng
 ech system & all chngs z thse systems th hve occrd snc 9/24/76.
 U will nd 2 sprtly qntfy 4 ech prnttd srce te max. actl emssns
 prr z ech chng & te max. emssns afr ech chngg. Te max. actl opern rte
 prr z ech chng, & te max. ^{opern rte} afr ech chng is also z B prdct
 U will nd 2 grv te dce te ech chng occrd. Pls jdnfy anythr
 srces whn te mill tt were affctd by thse chngs & prvd te
 max. hly cgstd N4 mtr crncng opern rtes, emssns, & dces. Also, qntfy te
 chngs N opern rtes & emssns te will occr as a rslt of thse appletns. ^{prjet} ^{descr}
 - Opern rtes & emssns of all plntns lstd N Tble 500-2
 of FAC Ch. 17-2 R 2 B sprtly qntfy 4 ech affctd srce whn te mill.
 Ech affctd srce is z B idntfy. Emssns R 2 B xprsd N Wshr & T N
 If a 24 hr opern rte & emssn rte wld B lwr
 thn hly it is also z B qntfy & expln of physcl fetrs lntg opern
 rtes & emssns gunc
 3-hr, 12-hr, or

Our applicants & the above referenced construction permits were received on 11/1/87.
We have reviewed these applications & find them to be incomplete. Processing of the applications
will resume upon receipt of the required information. Please show all calculations, see & justify
all assumptions, & provide copies of all documents. Emission calculations. Also include all
pollutants listed in Table 500-2 of FAC Ch. 17-2. Emission rates per 2 each change R 2
B max. actual & emission rates after each change R 2 B max. Operation rates per 2
each change R 2 B max. actual & operation rates after each change R 2 B max. design capacity.
Please provide & show drawings of all process flow sheets, control efficiencies, emissions, &
gas flow rates (ACFM, DSCFM, temp., % H₂O, & FPS).

You will need to provide complete descriptions of the existing sources, the changes to be made,
& the equipment to be installed. This is to include but not be limited to the No., type, make

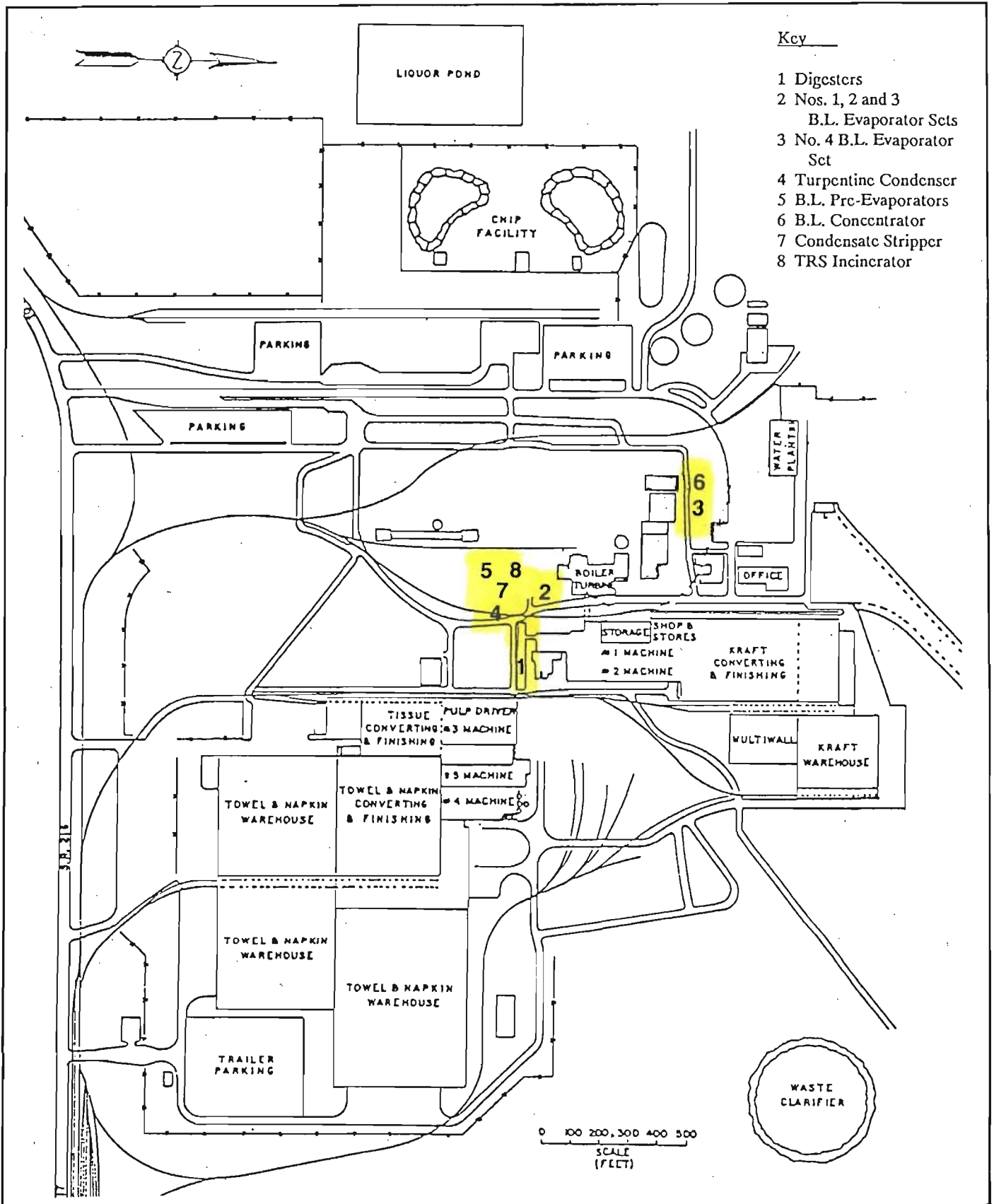


Figure 2. Location of TRS Sources at G-P Palatka Mill



Ur applictns 4 te rfrnd cnsrctn pnts wre rcvd on 11/187. We hve crwd
thse applictns & fnd thm 2 B Ncmplte. Prssng of thse applictns will rsm
up r cpt of te rgsd N4mtn. Pls shw all cclens, stte all assmptns,
& prude all dcmntn.

Te oprtn rtes of te dgstrs (whch by dfn'n Nalde te accmlr taks &
turp condnsr system) & ech of te M&E ses (whch by dfn'n Nalde te cncrttr)
appr 2 hve sbstntly Ncrsd abve thse spcfd N te Ncm oprtn pnts &
te '84 N v'ntry. Pls dscr'b all chngs N te mthds of oprtnng thse srces &
all physcl chnges 2 thse srces te hve occrd snc 9/24/76. U will
nd 2 spctly qntfy te max. actl emssns prr 2 ech chng & te max emssns
'after ech chng. 4 ech affctd srce wth N ur mll. Te max. actl oprtn rte
prr 2 ech chng & te max. cpcy aftr ech chng is 2 B spctly qntfd
4 ech affctd srce wth N ur mll. Pls prude te dte te ech chng
occrd. U will also nd 2 prude ths N4mtn 4 ech affctd srce wth N
ur mll B4 & after te chngs prpsd by te. abve rfrnd pnt applictns.
Ech affctd srce is 2 B idntfd. Emssn & oprtn rtes R 2 B N tms
of max. hrly. If 3-hr, 12-hr, & 24-hr emssn & oprtn rtes R lwr thn
te max. hrly thn thse R also 2 B spctly qntfd; &, an expln
of physcl fctrs te lnt thse v'les prudd. Emssns of all plntns (scd
N Tble 500-2 of FAC Ch. 17-2 R 2 B spctly qntfd N 16/hr & 71Yr 4 ech
affctd srce wth N ur mll. Wht apprtee we will also nd PM₁₀ estntes

We cant dcrme if te oprtn & emssn rtes N te abve rfrnd applictns
R rprntve of wht will B xpcd 2 occr if te thry R apprvd. N addn,
we will also nd te max rte te ech of te affctd srces will emt
gs 2 te NCG hndng system. Ths data is 2 Nalde ^{out}ACFM, DSCFM,
actl vel., temp., & % H₂O of te gs 2 B emtd by ech srce. U will
nd 2 shw drivns of all prss Npt rtes, shw all cclens of oprtn
& emssn rtes, stte all assmptns, & prude all dcmntn.

Pls nte te te accmlr taks R a prt of te dgstrs prnt 2 FAC

This TRS Compliance Plan contains air construction permit applications for the following sources:

- No. 3 Accumulator Tank
- Black Liquor Pre-Evaporators
- No. 1 Black Liquor Evaporator Set
- No. 2 Black Liquor Evaporator Set
- No. 3 Black Liquor Evaporator Set
- No. 4 Black Liquor Evaporator Set/Black Liquor Concentrator
- Turpentine Condenser
- Condensate Stripper
- TRS Incinerator

G-P has previously submitted a conceptual TRS compliance plan to FDER. The conceptual plan sets forth a schedule of events which must be met in order to ensure compliance by the final compliance dates specified in FAC Rule 17-2.600(4)(c). This schedule is summarized in Table 1 for each source subject to the TRS rules.

As shown in the table, all sources will be on essentially the same schedule. Certification of final compliance for all sources is due to FDER no later than May 12, 1989. To allow sufficient time to prepare operating permit applications for the sources, and to allow FDER sufficient time to review the applications and issue operating permits, it is requested that the expiration date of all construction permits be no sooner than November 12, 1989.

Table 1. Schedule for Achieving Compliance with TRS Regulations, G-P Palatka Mill

<u>Source</u>	<u>Certification of Equipment Order</u>	<u>Certification of Initial Construction</u>	<u>Certification of Completion of Construction</u>	<u>Certification of Final Compliance</u>	<u>Submit Operating Permit Application</u>	<u>Construction Permit Expiration Date</u>
No. 3 Digester Accumulator Tank	8/31/87	1/2/88	3/1/89	5/12/89	8/12/89	11/12/89
Turpentine Condenser	8/31/87	1/2/88	3/1/89	5/12/89	8/12/89	11/12/89
Black Liquor Pre-Evaporators	-	1/2/88	3/1/89	5/12/89	8/12/89	11/12/89
No. 1 Black Liquor Evaporator Set	8/31/87	1/2/88	3/1/89	5/12/89	8/12/89	11/12/89
No. 2 Black Liquor Evaporator Set	8/31/87	1/2/88	3/1/89	5/12/89	8/12/89	11/12/89
No. 3 Black Liquor Evaporator Set	8/31/87	1/2/88	3/1/89	5/12/89	8/12/89	11/12/89
No. 4 Black Liquor Evaporator Set/ Black Liquor Concentrator	8/31/87	1/2/88	3/1/89	5/12/89	8/12/89	11/12/89
Condensate Stripper	-	1/2/88	3/1/89	5/12/89	8/12/89	11/12/89
TRS Incinerator	-	1/2/88	3/1/89	5/12/89	8/12/89	11/12/89

**Permit Application
AC 54-142282**



APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Digester Accumulator Tank [] New¹ [X] Existing¹

APPLICATION TYPE: [X] Construction [] Operation [X] Modification

COMPANY NAME: Georgia-Pacific Corporation COUNTY: Putnam

Identify the specific emission point source(s) addressed in this application (i.e. Lime

Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) No.3 Digesting Accumulator TankSOURCE LOCATION: Street Highway 216 City PalatkaUTM: East 434.0 North 3283.4Latitude 29° 41' 00"N Longitude 81° 40' 45"WAPPLICANT NAME AND TITLE: Henry Hirschman, General ManagerAPPLICANT ADDRESS: P.O. Box 919, Palatka, Florida 32077

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Georgia-Pacific Corporation

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: Henry Hirschman 1/14/87Henry Hirschman, General Manager

Name and Title (Please Type)

Date: _____ Telephone No. (904) 325-2001

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

¹ See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed David A. Buff

David A. Buff
Name (Please Type)

KBN Engineering and Applied Sciences, Inc.
Company Name (Please Type)

P.O. Box 14288, Gainesville, Florida 32604
Mailing Address (Please Type)

Florida Registration No. 19011 Date: 11/10/87 Telephone No. (904) 375-8000

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

One large digesting accumulator tank (No.3) will replace the two existing digester accumulator tanks (Nos.1 and 2). Off-gases from the new tank will be vented to an incinerator for TRS control. This project is part of the overall TRS compliance plan for the mill. See Attachment A for further description.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction upon permit issuance Completion of Construction November 12, 1989

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

	<u>No.1 Digesting Accumulator Tank</u>	<u>No.2 Digesting Accumulator Tank</u>
Permit:	<u>A054-116074</u>	<u>A054-116075</u>
Issued:	<u>8/28/86</u>	<u>8/28/86</u>
Expires:	<u>5/12/89</u>	<u>5/12/89</u>

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52
if power plant, hrs/yr _____; if seasonal, describe: _____

F. If this is a new source or major modification, answer the following questions.
(Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? No
a. If yes, has "offset" been applied? _____
b. If yes, has "Lowest Achievable Emission Rate" been applied? _____
c. If yes, list non-attainment pollutants. _____

2. Does best available control technology (BACT) apply to this source?
If yes, see Section VI. No

3. Does the State "Prevention of Significant Deterioration" (PSD)
requirement apply to this source? If yes, see Sections VI and VII. No

4. Do "Standards of Performance for New Stationary Sources" (NSPS)
apply to this source? No

5. Do "National Emission Standards for Hazardous Air Pollutants"
(NESHAP) apply to this source? No

H. Do "Reasonably Available Control Technology" (RACT) requirements apply
to this source? No

a. If yes, for what pollutants? _____

b. If yes, in addition to the information required in this form,
any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justifi-
cation for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Wood chips			291,417	Figure A-3 (1)
White liquor			566,501	Figure A-3 (2)
Black liquor			167,078	Figure A-3 (3)

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): 1,024,996 *1850 T/D*
2. Product Weight (lbs/hr): 154,167 lb/hr ADP; 238,958 lb/hr BLS

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed Emission Rate per Rule 17-2	Allowable Emission lbs/hr	Potential Emission ⁴		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/XX hr	T/yr	
TRS (as sulfur)*							
Max 24-hr avg	196	858	600(4)(c)1	Incineration	196	858	Fig A-3(4)
Max 3-hr avg	300	NA	600(4)(c)1	Incineration	300	NA	Fig A-3(4)

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

* All TRS emissions will be incinerated (refer to TRS Incinerator application)

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
TRS Incinerator	(see TRS Incinerator permit application)			

E. Fuels Not Applicable

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average Not Applicable Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

Not Applicable

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Refer to TRS Incinerator permit application

Stack Height: _____ ft. Stack Diameter: _____ ft.

Gas Flow Rate: _____ ACFM _____ DSCFM Gas Exit Temperature: _____ °F.

Water Vapor Content: _____ % Velocity: _____ FPS

SECTION IV: INCINERATOR INFORMATION

Not Applicable

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume (ft) ³	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: Cyclone Wet Scrubber Afterburner
 Other (specify) _____

Brief description of operating characteristics of control devices: _____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

- 9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
- 10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY.

Not Applicable

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes No

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____
_____	_____

B. Has EPA declared the best available control technology for this class of sources (if yes, attach copy)

Yes No

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____
_____	_____

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____
_____	_____

D. Describe the existing control and treatment technology (if any).

- | | |
|---------------------------|--------------------------|
| 1. Control Device/System: | 2. Operating Principles: |
| 3. Efficiency:* | 4. Capital Costs: |

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

10. Stack Parameters

- a. Height: ft. b. Diameter: ft.
- c. Flow Rate: ACFM d. Temperature: °F.
- e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable use additional pages if necessary).

1.

- a. Control Device: b. Operating Principles:
- c. Efficiency:¹ d. Capital Cost:
- e. Useful Life: f. Operating Cost:
- g. Energy:² h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- a. Control Device: b. Operating Principles:
- c. Efficiency:¹ d. Capital Cost:
- e. Useful Life: f. Operating Cost:
- g. Energy:² h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:¹

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:²

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant

Rate or Concentration

(8) Process Rate:¹

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant

Rate or Concentration

(8) Process Rate:¹

10. Reason for selection and description of systems:

¹Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

Not Applicable

A. Company Monitored Data

1. _____ no. sites _____ TSP _____ () SO₂* _____ Wind spd/dir

Period of Monitoring _____ / _____ / _____ to _____ / _____ / _____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [] Yes [] No

b. Was instrumentation calibrated in accordance with Department procedures?

[] Yes [] No [] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from _____ / _____ / _____ to _____ / _____ / _____
month day year month day year

2. Surface data obtained from (location) _____

3. Upper air (mixing height) data obtained from (location) _____

4. Stability wind rose (STAR) data obtained from (location) _____

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO ₂	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

ATTACHMENT A
PROCESS DESCRIPTION

The new No. 3 Accumulator Tank will serve the existing digesters and blow tanks. A typical batch digester/blow tank/accumulator flow sheet is presented in Figure A-1. The existing arrangement at G-P of thirteen (13) digesters and three (3) blow tanks is shown in Figure A-2. The system is arranged such that No. 1 through No. 6 Digesters can discharge either to No. 1 or No. 2 Blow Tank, No. 7 and No. 8 Digesters can discharge to either of the three blow tanks, and No. 9 through No. 11 Digesters can discharge to either No. 2 or No. 3 Blow Tank. No. 12 and No. 13 Digesters only discharge to No. 3 Blow Tank. The accumulator tanks are arranged such that No. 1 and No. 2 Blow Tanks discharge to No. 1 Accumulator Tank, and No. 3 Blow Tank discharges to No. 2 Accumulator Tank. **The only change to the existing arrangement will be that a single accumulator tank (No. 3) will replace the two existing accumulator tanks, as shown in Figure A-3.**

*Recon
- struc
analysis*

Currently, the existing accumulator tanks vent directly to the atmosphere. Non-condensable gases from the new No. 3 Accumulator Tank will be collected and sent to the TRS Incinerator for destruction of TRS.

The maximum input of raw materials to the digesters and the maximum product weights are based upon the following:

- Maximum pulp production = 1,850 TPD air dried pulp (ADP) (@10% H₂O)
= 1,665 TPD (dry)
- 0.5 tons pulp (dry) = 1.05 tons wood chips (dry)
- White liquor (S.G.=1.16)= 9.67 lb/gal
- White liquor usage (avg)= 760 gal/ton ADP
- Black liquor (S.G.=1.04)= 8.67 lb/gal
- Black liquor usage (avg)= 250 gal/ton ADP

*1,700 TPD in
pulp*

Input Rates (Maximum 24-hour average):

Max hrly

- (1) Wood chips
 $1,665 \text{ TPD pulp (dry)} \times 1.05 \text{ ton chips}/0.5 \text{ tons pulp (dry)}$
 $= 3,497 \text{ TPD wood chips (dry)}$
 $3,497 \text{ TPD wood chips (dry)} / 24\text{-hr/day} \times 2000 \text{ lb/ton}$
 $= 291,417 \text{ lb/hr wood chips (dry)}$

- (2) White liquor
 $1,850 \text{ TPD ADP} \times 760 \text{ gal/ton ADP} \times 9.67 \text{ lb/gal} / 24\text{-hr/day}$
 $= 566,501 \text{ lb/hr}$

- (3) Black liquor
 $1,850 \text{ TPD ADP} \times 250 \times 8.67 / 24$
 $= 167,078 \text{ lb/hr}$

- (4) Total input rate
 $291,417 + 566,501 + 167,078 = 1,024,996 \text{ lb/hr}$

Product Rates (Maximum 24-hour average):

Max hrly

- (1) Pulp
 $1,850 \text{ TPD ADP} \times 2000 \text{ lb/ton} / 24\text{-hr/day}$
 $= 154,167 \text{ lb/hr ADP}$
 $1,665 \text{ TPD Pulp (dry)} \times 2000 / 24$
 $= 138,750 \text{ lb/hr pulp (dry)}$

- (2) Black liquor
 $\text{Black liquor solids (BLS) produced} = 3100 \text{ lb/ton ADUP}$
 $1,850 \text{ TPD ADP} \times 3100 \text{ lb/ton} = 5.735 \times 10^6 \text{ lb/day BLS}$
 $= 238,958 \text{ lb/hr BLS}$

2,12,494 Incentive Permit

The Florida TRS rules require that a contingency plan be developed for digester systems for times when emergency venting of TRS emissions occurs, or when a TRS control device is shut down for essential maintenance (FAC Rule 17-2.600(4)(c)1.). G-P proposes to use a tall stack as a backup

control device for the digester system when the TRS Incinerator is shutdown for essential maintenance or for other emergency situations. Venting of TRS gases through the TRS Incinerator stack (250 feet high) will provide increased dispersion and reduce ground-level impacts.

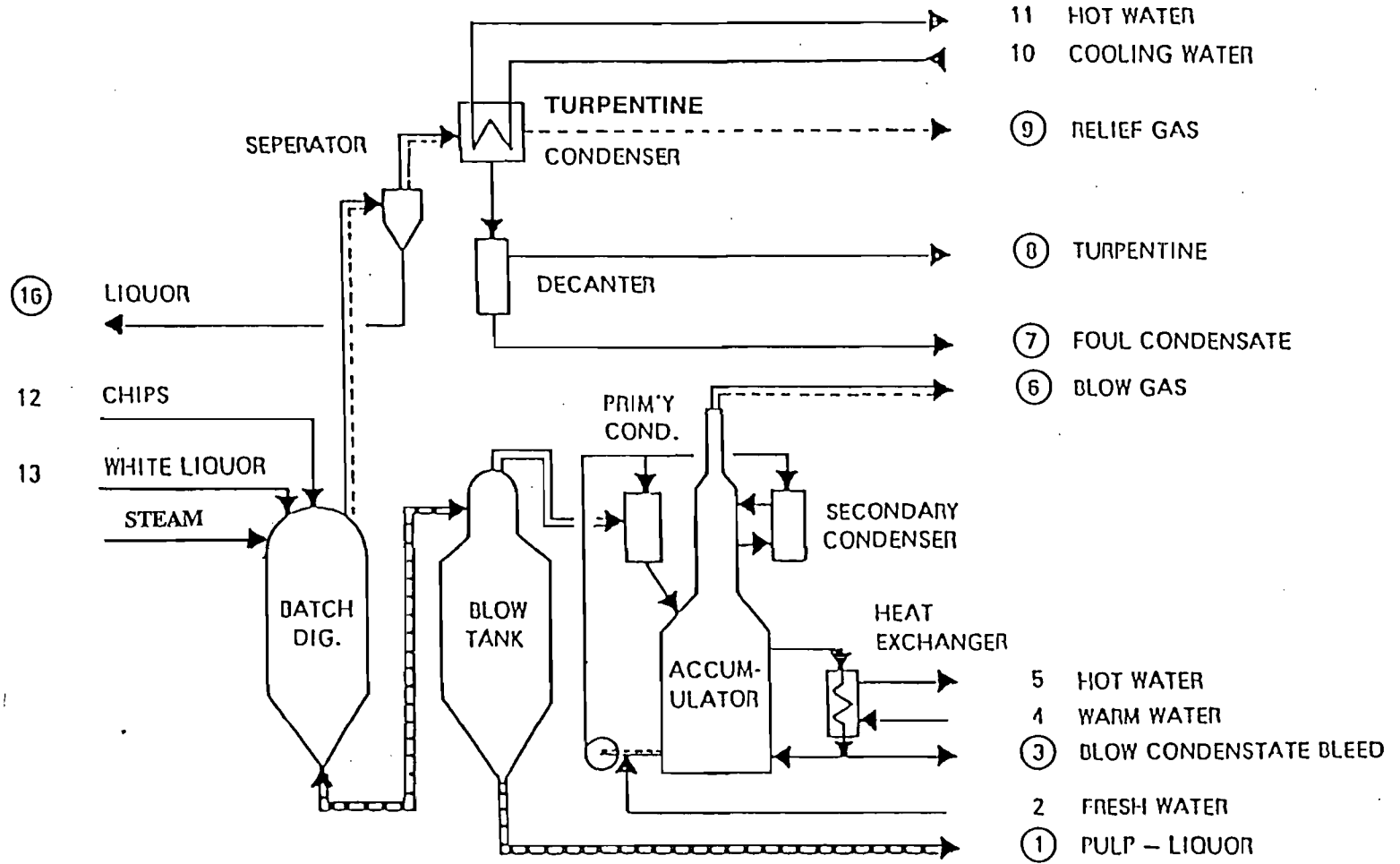


FIGURE A-1. BATCH DIGESTER FLOW SHEET (TYPICAL)



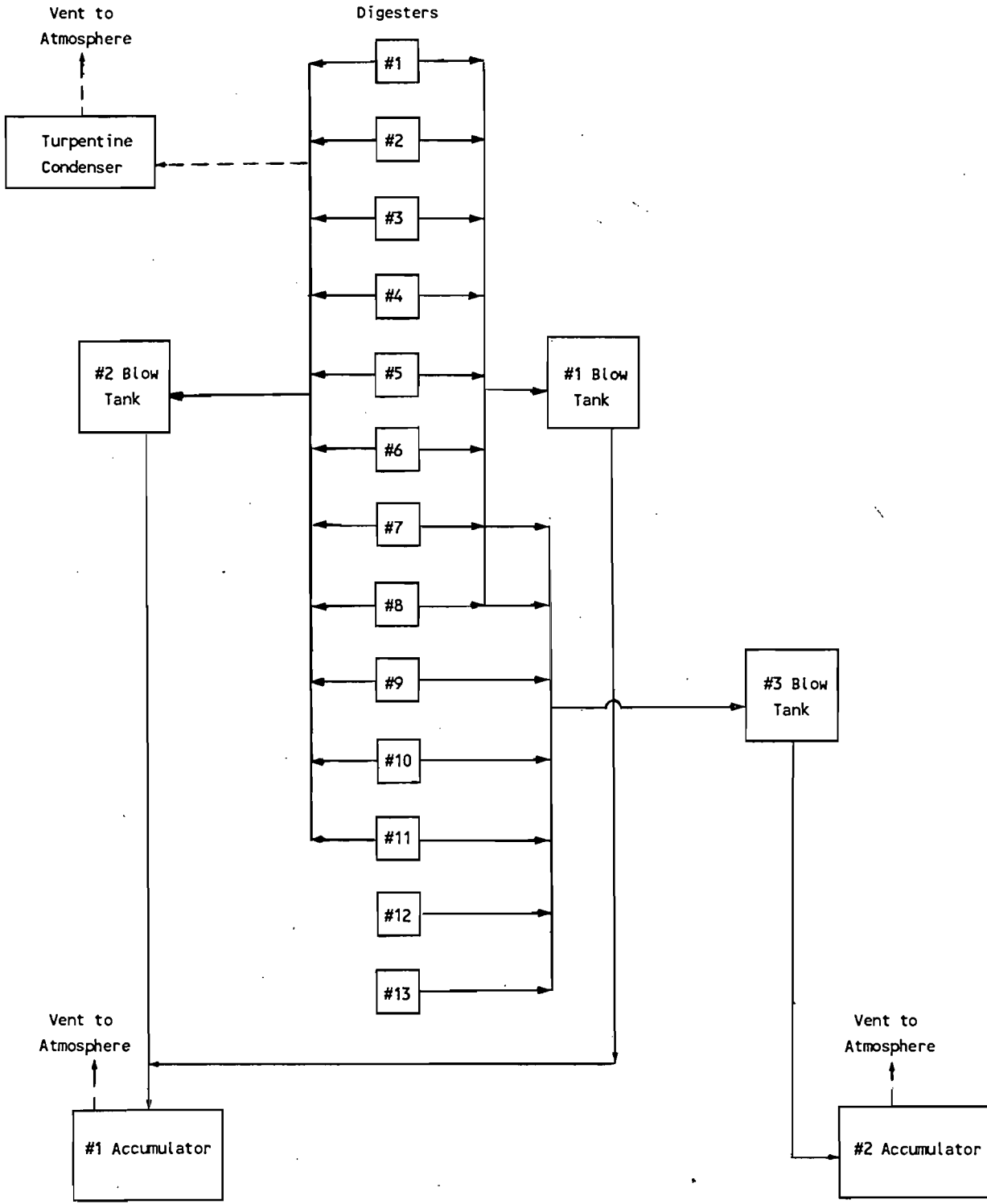


Figure A-2. Flow Diagram of Existing G-P Digester System

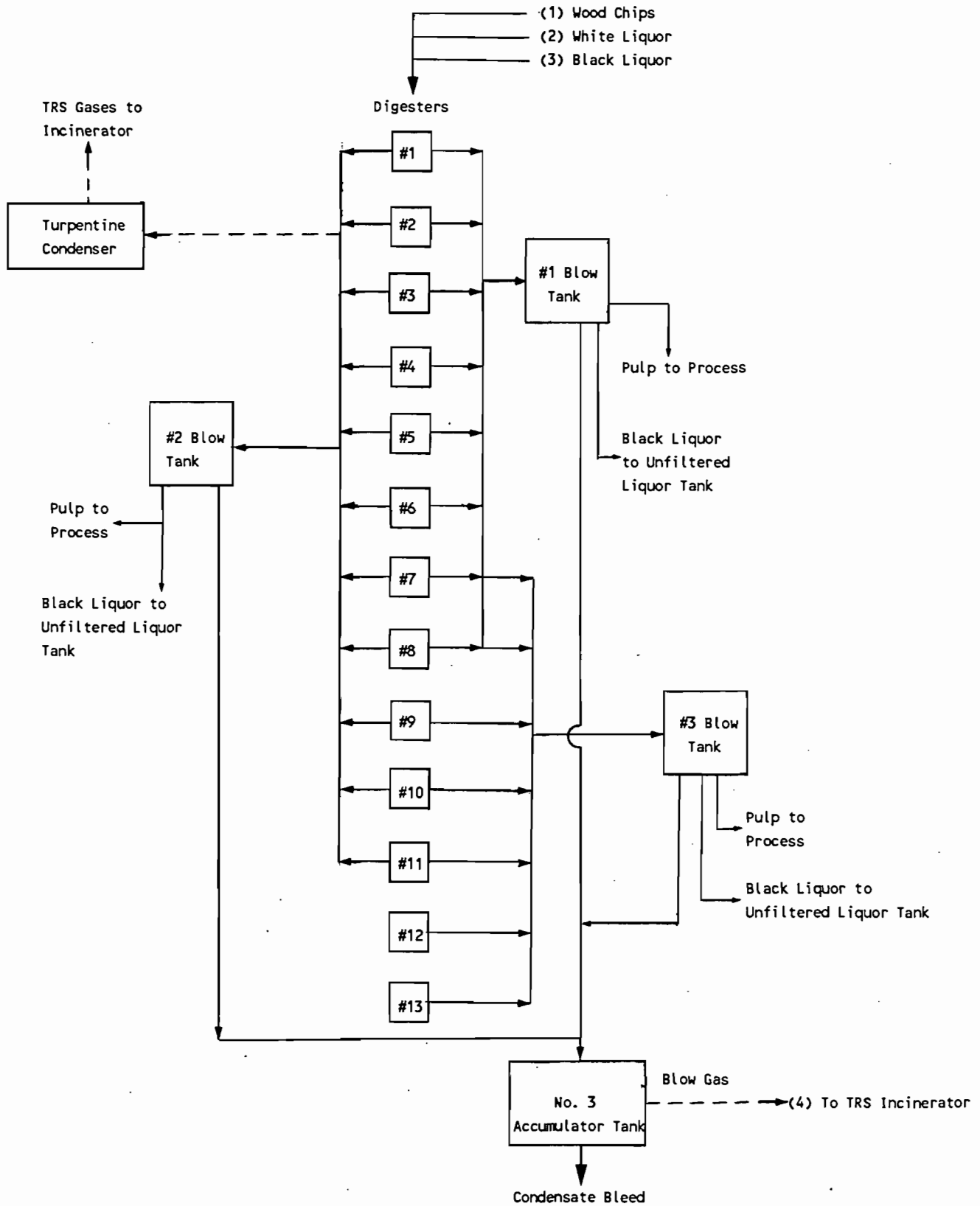


Figure A-3. Flow Diagram of Proposed G-P Digester System

ATTACHMENT B
TRS EMISSION ESTIMATES

Assume
sut.
120
lb
0.01 hr
0.04

TRS emission estimates are based upon TRS testing at other pulp mills, published data and engineering judgment. The design flow of non-condensable gases from the No. 3 Accumulator Tank, as provided by A.H. Lundberg Associates, Inc., is as follows:

440 acfm @ 120°F

TRS (as sulfur) emissions - 196 lb/hr

Because of the potential variability in TRS emissions from the process, maximum TRS emissions (as sulfur) for permitting purposes are as follows:

Maximum 24-hr average: 196 lb/hr

Maximum 3-hr average: 300 lb/hr

Maximum annual average: $196 \text{ lb/hr} \times 8,760 \text{ hr/yr} / 2,000 \text{ lb/ton}$
= 858 TPY

**Permit Application
AC 54-142283**

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Receipt # 117501
V# 207210
\$1000.00
AC 54-142283



APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Black Liquor Pre-Evaporators [X] New¹ [] Existing¹

APPLICATION TYPE: [X] Construction [] Operation [] Modification

COMPANY NAME: Georgia-Pacific Corporation COUNTY: Putnam

Identify the specific emission point source(s) addressed in this application (i.e. Lime

Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Black Liquor Pre-Evapor-
ators

SOURCE LOCATION: Street Highway 216 City Palatka

UTM: East 434.0 North 3283.4

Latitude 29° 41' 00"N Longitude 81° 40' 45"W

APPLICANT NAME AND TITLE: Henry Hirschman, General Manager

APPLICANT ADDRESS: P.O. Box 919, Palatka, Florida 32077

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Georgia-Pacific Corp.

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: Henry Hirschman 11/14/82

Henry Hirschman, General Manager
Name and Title (Please Type)

Date: _____ Telephone No. (904) 325-2001

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

¹ See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed David A. Buff

David A. Buff

Name (Please Type)

KBN Engineering and Applied Sciences, Inc.

Company Name (Please Type)

P.O. Box 14288, Gainesville, FL 32604

Mailing Address (Please Type)

Florida Registration No. 19011 Date: 11/20/87 Telephone No. (904) 375-8000

SECTION II: GENERAL PROJECT INFORMATION

- A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

A new black liquor Pre-Evaporator system will be installed preceding the existing black liquor evaporator sets (No. 1 through No. 4). The Pre-Evaporator will allow more efficient concentration of the black liquor from the digesters by utilizing waste heat from the digester blow gases instead of virgin steam. This project is part of the overall TRS compliance plan for the mill. See Attachment A for further description.

- B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction Upon permit issuance Completion of Construction Nov. 12, 1989

- C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

- D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

Not Applicable

BEST AVAILABLE COPY

E. Requested permitted equipment operating time: hrs/day 24; days/wk 7; wks/yr 52;
if power plant, hrs/yr _____; if seasonal, describe: _____

F. If this is a new source or major modification, answer the following questions.
(Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? No
 - a. If yes, has "offset" been applied? _____
 - b. If yes, has "Lowest Achievable Emission Rate" been applied? _____
 - c. If yes, list non-attainment pollutants. _____
 2. Does best available control technology (BACT) apply to this source?
If yes, see Section VI. No
 3. Does the State "Prevention of Significant Deterioration" (PSD)
requirement apply to this source? If yes, see Sections VI and VII. No
 4. Do "Standards of Performance for New Stationary Sources" (NSPS)
apply to this source? No
 5. Do "National Emission Standards for Hazardous Air Pollutants"
(NESHAP) apply to this source? No
- H. Do "Reasonably Available Control Technology" (RACT) requirements apply
to this source? No
- a. If yes, for what pollutants? _____
 - b. If yes, in addition to the information required in this form,
any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justifi-
cation for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Black Liquor			1,706,843	Fig. A-1 (1)

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): 1,706,843 lb/hr BL; 238,958 lb/hr BLS

2. Product Weight (lbs/hr): 1,405,635 lb/hr BL; 238,958 lb/hr BLS BL = Black Liquor

BLS=Black liquor solids

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed ² Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
TRS (as sulfur)*							
Max 24-hr avg	69	302	17-2.600(4)(c)1	Incineration	69	302	Fig A-1(4)
Max 3-hr avg	106	NA	17-2.600(4)(c)1	Incineration	106	NA	Fig A-1(4)

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

* All TRS will be incinerated (refer to TRS Incinerator Application)

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
TRS Incinerator	(see TRS Incinerator permit application)			

E. Fuels Not Applicable

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average Not Applicable Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

Evaporator condensate sent to steam stripper or recycled back into process

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):
 Refer to TRS Incinerator permit application

Stack Height: _____ ft. Stack Diameter: _____ ft.
 Gas Flow Rate: _____ ACFM _____ DSCFM Gas Exit Temperature: _____ °F.
 Water Vapor Content: _____ % Velocity: _____ FPS

SECTION IV: INCINERATOR INFORMATION

Not Applicable

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____
 Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____
 Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____
 Manufacturer _____
 Date Constructed _____ Model No. _____

	Volume (ft) ³	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp. _____
 Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: Cyclone Wet Scrubber Afterburner
 Other (specify) _____

Brief description of operating characteristics of control devices: _____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

- 9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
- 10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

Not Applicable

- A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 61 applicable to the source?

Yes No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

- B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

Yes No

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

- C. What emission levels do you propose as best available control technology?

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

- D. Describe the existing control and treatment technology (if any).

1. Control Device/System:

2. Operating Principles:

3. Efficiency:*

4. Capital Costs:

*Explain method of determining

- 5. Useful Life:
- 7. Energy:
- 9. Emissions:

- 6. Operating Costs:
- 8. Maintenance Cost:

Contaminant	Rate or Concentration

10. Stack Parameters

- a. Height: ft. b. Diameter: ft.
- c. Flow Rate: ACFM d. Temperature: °F.
- e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable use additional pages if necessary).

1.

- a. Control Device: b. Operating Principles:
- c. Efficiency:¹ d. Capital Cost:
- e. Useful Life: f. Operating Cost:
- g. Energy:² h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- a. Control Device: b. Operating Principles:
- c. Efficiency:¹ d. Capital Cost:
- e. Useful Life: f. Operating Cost:
- g. Energy:² h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

¹Explain method of determining efficiency.
²Energy to be reported in units of electrical power - KWH design rate.

- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Costs:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

- 1. Control Device:
- 2. Efficiency:¹
- 3. Capital Cost:
- 4. Useful Life:
- 5. Operating Cost:
- 6. Energy:²
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:
- a. (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant

Rate or Concentration

(8) Process Rate:¹

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant

Rate or Concentration

(8) Process Rate:¹

10. Reason for selection and description of systems:

¹Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

Not Applicable

A. Company Monitored Data

1. _____ no. sites _____ TSP _____ () SO₂* _____ Wind spd/dir

Period of Monitoring _____ / _____ / _____ to _____ / _____ / _____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

Assume Sat.
14.9903
18.1235

0.0062 lb/hr

ATTACHMENT A
PROCESS DESCRIPTION

Black liquor from the digesters are stored in the unfiltered black liquor tank. After filtering, the black liquor enters the Pre-evaporators at approximately 14% solids content. The Pre-evaporators, using waste heat recovered from the digester blow gases, concentrate the black liquor to 17% solids. Evaporator condensate, which is primarily water, is sent either back to the process (85% of total) or to the condensate stripper (15% of total) for methanol recovery. Non-condensable gases from the evaporation process go to the Pre-evaporators hotwell, and are then sent to the TRS Incinerator for incineration of TRS gases. A flow diagram of the process is presented in Figure A-1.

A.H. Lundberg Associates has estimated the flow of non-condensable gases from the Pre-evaporator hotwell as follows:

320 acfm @ 135°F

TRS emissions (as sulfur) = 69 lb/hr

This emission estimate is based upon TRS test data from other mills and published information. They are estimates, and actual TRS emissions may be highly variable. As a result, for permitting purposes, maximum TRS emissions (as sulfur) are estimated as follows:

Maximum 24-hour average - 69 lb/hr

Maximum 3-hour average - 106 lb/hr

Maximum annual average - 69 lb/hr x 8,760 hr/yr / 2,000 lb/ton
= 302 TPY

Derivation of Process Input and Product Rates

Black Liquor feed to Pre-Evaporators:

From No. 3 Accumulator Tank permit application, black liquor solids (BLS) flow is 238,958 lb/hr

Black liquor is at 14% solids going into Pre-Evaporators

Black liquor flow = $238,958 \text{ lb/hr} / 0.14 = 1,706,843 \text{ lb/hr}$

Density = 8.67 lb/gal

$1,706,843 \text{ lb/hr} / 8.67 \text{ lb/gal} / 60 \text{ min/hr} = 3,281 \text{ gpm}$

Black Liquor flow out of Pre-Evaporators:

Black liquor is at 17% solids (S.G. = 1.05)

$238,958 \text{ lb/hr BLS} / 0.17 = 1,405,635 \text{ lb/hr}$

Density = $8.34 \times 1.05 = 8.76 \text{ lb/gal}$

$1,405,635 \text{ lb/hr} / 8.76 \text{ lb/gal} / 60 = 2,674 \text{ gpm}$

Pre-Evaporators Condensate flow:

Pre-Evaporators condensate = $\text{BL}(\text{in}) - \text{BL}(\text{out})$

$= 1,706,843 - 1,405,635 = 301,208 \text{ lb/hr}$

Pre-Evaporators condensate to Condensate Stripper:

$= 301,208 \times 0.15 = 45,181 \text{ lb/hr}$

Pre-Evaporators condensate to process (85%)

$= 301,208 \times 0.85 = 256,027 \text{ lb/hr}$

The Florida TRS rules require that a contingency plan be developed for multiple effect evaporator systems for times when emergency venting of TRS emissions occurs, or when a TRS control device is shut down for essential maintenance (FAC Rule 17-2.600(4)(c)1.c). G-P proposes to utilize a tall stack as a backup control device for the Pre-Evaporators system when the TRS Incinerator is shutdown for essential maintenance or other emergency situations. Venting of TRS gases through the TRS Incinerator stack (250 feet high) will provide increased dispersion and reduces ground level impacts.

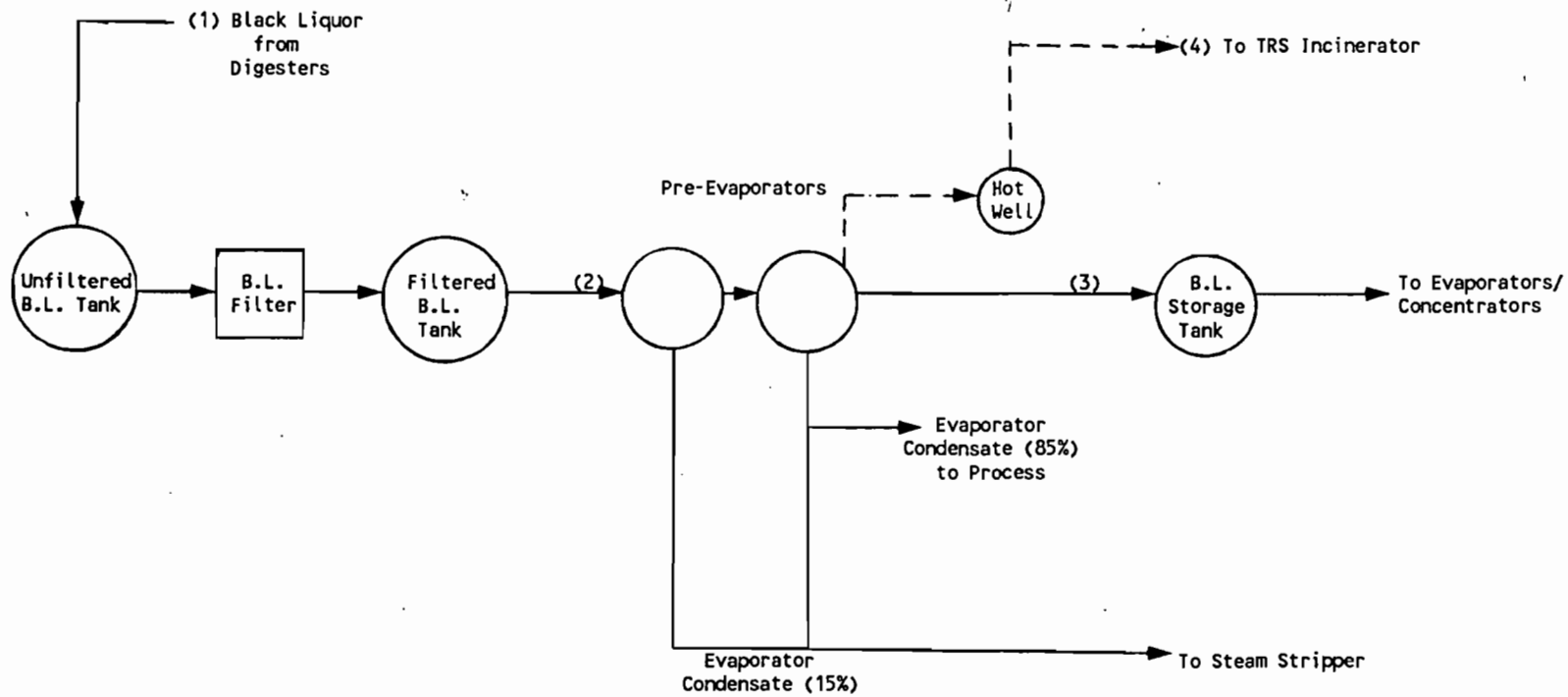


Figure A-1. Flow Diagram of Proposed Pre-Evaporator System

Permit Application
AC 54-142284

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Receipt # 117501
V# 207210
\$ 500.00
AC 54-142284



APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Black Liquor Evaporators [] New¹ [X] Existing¹
APPLICATION TYPE: [X] Construction [] Operation [X] Modification
COMPANY NAME: Georgia-Pacific Corporation COUNTY: Putnam
Identify the specific emission point source(s) addressed in this application (i.e. Lime
Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) No. 1 Black Liquor Evap-
orator Set
SOURCE LOCATION: Street Highway 216 City Palatka
UTM: East 434.0 North 3283.4
Latitude 29 ° 41 ' 00 "N Longitude 81 ° 40 ' 45 "W
APPLICANT NAME AND TITLE: Henry Hirschman, General Manager
APPLICANT ADDRESS: P.O. Box 919, Palatka, Florida 32077

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Georgia-Pacific Corp.

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: Henry Hirschman 11/4/87
Henry Hirschman, General Manager
Name and Title (Please Type)

Date: _____ Telephone No. (904) 325-2001

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

¹ See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed David A. Buff

David A. Buff
Name (Please Type)

KBN Engineering and Applied Sciences, Inc.
Company Name (Please Type)

P.O. Box 14288, Gainesville, FL 32604
Mailing Address (Please Type)

Florida Registration No. 19011 Date: 11/10/87 Telephone No. (904) 375-8000

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Off-gases from the No. 1 Black Liquor Evaporator Set will be vented to an incinerator for destruction of TRS. This project is part of the overall TRS compliance plan for the mill. See Attachment A for further description.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction Upon permit issuance Completion of Construction Nov. 12, 1989

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

Permit: A054-116068

Issued: 8/28/86

Expires: 5/12/89

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52
if power plant, hrs/yr _____; if seasonal, describe: _____

F. If this is a new source or major modification, answer the following questions.
(Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? No
a. If yes, has "offset" been applied? _____
b. If yes, has "Lowest Achievable Emission Rate" been applied? _____
c. If yes, list non-attainment pollutants. _____

2. Does best available control technology (BACT) apply to this source?
If yes, see Section VI. No

3. Does the State "Prevention of Significant Deterioration" (PSD)
requirement apply to this source? If yes, see Sections VI and VII. No

4. Do "Standards of Performance for New Stationary Sources" (NSPS)
apply to this source? No

5. Do "National Emission Standards for Hazardous Air Pollutants"
(NESHAP) apply to this source? No

H. Do "Reasonably Available Control Technology" (RACT) requirements apply
to this source? No

a. If yes, for what pollutants? _____

b. If yes, in addition to the information required in this form,
any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justifi-
cation for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Black Liquor (BL)			236,520	Fig. A-1 (1)

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): 236,520 lb/hr BL @ 17% solids

2. Product Weight (lbs/hr) 80,416 lb/hr BL @ 50% solids

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed Emission Rate per Rule 17-2	Allowable Emission lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
TRS (as sulfur):*							
Max 24-hr avg	17	74	17-2.600 (4)(c)1	Incineration	17	74	Fig A-1(5)
Max 3-hr avg	26	NA	17-2.600 (4)(c)1	Incineration	26	NA	Fig A-1(5)

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

* All TRS emissions will be incinerated (refer to TRS Incinerator application)

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
TRS Incinerator	(refer to TRS	Incinerator permit	application)	

E. Fuels Not Applicable

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average Not Applicable Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

Not Applicable

Brief description of operating characteristics of control devices: _____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

- 9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
- 10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

Not Applicable

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes; attach copy)

Yes No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

D. Describe the existing control and treatment technology (if any).

- | | |
|---------------------------|--------------------------|
| 1. Control Device/System: | 2. Operating Principles: |
| 3. Efficiency:* | 4. Capital Costs: |

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

- a. Height: ft. b. Diameter: ft.
- c. Flow Rate: ACFM d. Temperature: °F.
- e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable use additional pages if necessary).

1.

- a. Control Device: b. Operating Principles:
- c. Efficiency:¹ d. Capital Cost:
- e. Useful Life: f. Operating Cost:
- g. Energy:² h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- a. Control Device: b. Operating Principles:
- c. Efficiency:¹ d. Capital Cost:
- e. Useful Life: f. Operating Cost:
- g. Energy:² h. Maintenance Coat:
- i. Availability of construction materials and process chemicals:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:¹

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:²

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

- (5) Environmental Manager:
- (6) Telephone No.:
- (7) Emissions:¹

Contaminant	Rate or Concentration

(8) Process Rate:¹

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant	Rate or Concentration

(8) Process Rate:¹

10. Reason for selection and description of systems:

¹Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

Not Applicable

A. Company Monitored Data

1. _____ no. sites _____ TSP _____ () SO₂* _____ Wind spd/dir

Period of Monitoring _____ / _____ / _____ to _____ / _____ / _____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

- a. Was instrumentation EPA referenced or its equivalent? Yes No
- b. Was instrumentation calibrated in accordance with Department procedures?
 Yes No Unknown

B. Meteorological Data Used for Air Quality Modeling

- 1. _____ Year(s) of data from _____ / _____ / _____ to _____ / _____ / _____
month day year month day year
- 2. Surface data obtained from (location) _____
- 3. Upper air (mixing height) data obtained from (location) _____
- 4. Stability wind rose (STAR) data obtained from (location) _____

C. Computer Models Used

- 1. _____ Modified? If yes, attach description.
- 2. _____ Modified? If yes, attach description.
- 3. _____ Modified? If yes, attach description.
- 4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO ²	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

ATTACHMENT A
PROCESS DESCRIPTION

The new black liquor storage tank which stores black liquor from the Pre-Evaporators will be designed to feed any of the four existing evaporator sets. A flow diagram of the process is presented in Figure A-1. The existing evaporators will be used to concentrate the black liquor from 17% solids to approximately 50% solids. The four existing evaporator sets are each designed to accommodate more than 25% of the total black liquor flow.

The No. 1 Evaporator Set will have the following design rate:

Maximum Black Liquor feed rate = 450 gallons/min @ 17% solids

Specific gravity of black liquor @ 17% solids = 1.05 (8.76 lb/gal)

Black Liquor feed rate = 450 gpm x 8.76 lb/gal x 60 min/hr
= 236,520 lb/hr

Black liquor solids feed rate = 236,520 lb/hr x 0.17 = 40,208 lb/hr

234,090 *Labelin*
Permit 32,772

The product rate from the No. 1 Evaporator Set is calculated as follows:

Solids content = 50%

40,208 lb/hr BLS / 0.50 = 80,416 lb/hr @ 50% solids

Non-condensable TRS gases from the No. 1 Evaporator Set hotwell will be sent to the new TRS Incinerator for destruction. A.H. Lundberg Associates has estimated the maximum TRS emissions from the No. 1 Evaporator Set hotwell to be 17 lb/hr (as sulfur, maximum 24-hour average). This estimate is based upon TRS test data from other pulp mills and published literature. Actual TRS emissions may vary considerably. As a result of these uncertainties, maximum TRS emissions for permitting purposes are estimated as 17 lb/hr, 24-hour maximum, and 26 lb/hr, 3-hour maximum (as sulfur). Maximum annual TRS emissions are estimated as follows:

17 lb/hr x 8,760 hr/yr / 2,000 lb/ton = 74 TPY

The Florida TRS rules require that a contingency plan be developed for multiple effect evaporator systems for times when emergency venting of TRS

emissions occurs, or when a TRS control device is shut down for essential maintenance (FAC Rule 17-2.600(4)(c)1.c). G-P proposes to use a tall stack as a backup control device for the No. 1 Black Liquor Evaporator Set when the TRS Incinerator is shutdown for routine maintenance or other emergency situations. Venting of TRS gases through the TRS Incinerator stack (250 ft high) will provide increased dispersion and reduce ground level impacts.

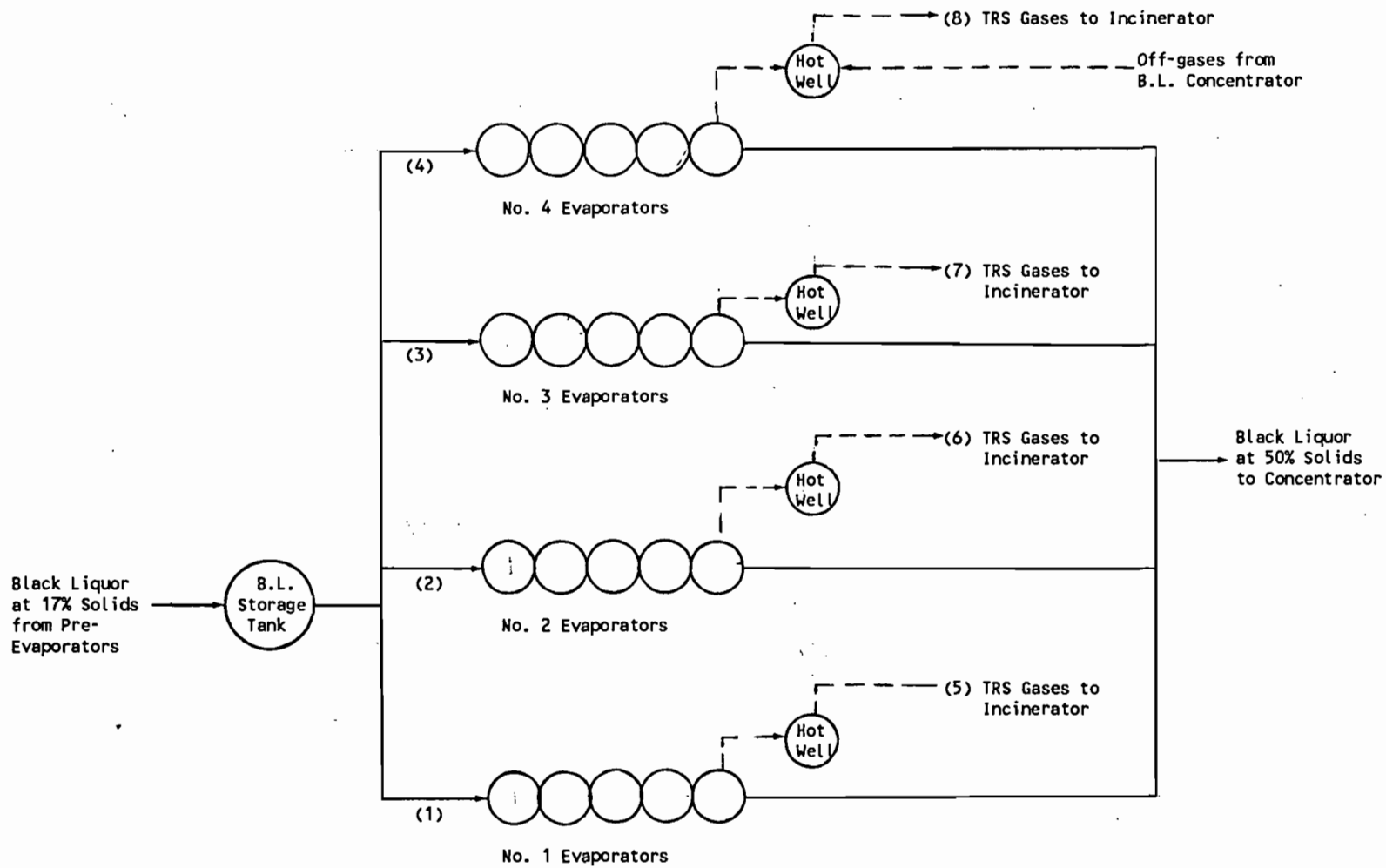


Figure A-1. Flow Diagram of Black Liquor Evaporators

Permit Application
AC 54-142285

Receipt # 117501
√ # 207210
\$500.00
AC 54-142285



APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Black Liquor Evaporators [] New¹ [X] Existing¹

APPLICATION TYPE: [X] Construction [] Operation [X] Modification

COMPANY NAME: Georgia-Pacific Corporation COUNTY: Putnam

Identify the specific emission point source(s) addressed in this application (i.e. Line

Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) No. 2 Black Liquor Evap-

SOURCE LOCATION: Street Highway 216 City Palatka

UTM: East 434.0 North 3283.4

Latitude 29 ° 41 ' 00" N Longitude 81 ° 40 ' 45 " W

APPLICANT NAME AND TITLE: Henry Hirschman, General Manager

APPLICANT ADDRESS: P.O. Box 919, Palatka, Florida 32077

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Georgia-Pacific Corp.

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: Henry Hirschman 1/14/87

Henry Hirschman, General Manager
Name and Title (Please Type)

Date: _____ Telephone No. (904) 325-2001

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

¹ See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed David A. Buff

David A. Buff
Name (Please Type)

KBN Engineering and Applied Sciences, Inc.
Company Name (Please Type)

P.O. Box 14288, Gainesville, FL 32604
Mailing Address (Please Type)

Florida Registration No. 19011 Date: 11/10/87 Telephone No. (904) 375-8000

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Off-gases from the No. 2 Black Liquor Evaporator Set will be vented to an incinerator for destruction of TRS. This project is part of the overall TRS compliance plan for the mill. See Attachment A for further description.

B. Schedule of project covered in this application (Construction Permit Application Only)
Start of Construction Upon permit issuance Completion of Construction Nov. 12, 1989

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

Permit: A054-116069

Issued: 8/28/86

Expires: 5/12/89

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;
if power plant, hrs/yr _____ ; if seasonal, describe: _____

F. If this is a new source or major modification, answer the following questions.
(Yes or No)

- 1. Is this source in a non-attainment area for a particular pollutant? No
 - a. If yes, has "offset" been applied? _____
 - b. If yes, has "Lowest Achievable Emission Rate" been applied? _____
 - c. If yes, list non-attainment pollutants. _____
- 2. Does best available control technology (BACT) apply to this source?
If yes, see Section VI. No
- 3. Does the State "Prevention of Significant Deterioration" (PSD)
requirement apply to this source? If yes, see Sections VI and VII. No
- 4. Do "Standards of Performance for New Stationary Sources" (NSPS)
apply to this source? No
- 5. Do "National Emission Standards for Hazardous Air Pollutants"
(NESHAP) apply to this source? No

- H. Do "Reasonably Available Control Technology" (RACT) requirements apply
to this source? No
 - a. If yes, for what pollutants? _____
 - b. If yes, in addition to the information required in this form,
any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justifi-
cation for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Black Liquor (BL)			420,480	Fig. A-1 (2)

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr) 420,480 lb/hr BL @ 17% solids

2. Product Weight (lbs/hr) 142,964 lb/hr BL @ 50% solids

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed Emission Rate per Rule 17-2	Allowable Emission ³ lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
TRS (as sulfur):*							
Max 24-hr avg	17	74	17-2.600 (4)(c)1	Incineration	17	74	Fig A-1(6)
Max 3-hr avg	26	NA	17-2.600 (4)(c)1	Incineration	26	NA	Fig A-1(6)

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

* All TRS emissions will be incinerated (refer to TRS Incinerator application)

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns). (If applicable)	Basis for Efficiency (Section V Item 5)
TRS Incinerator	(refer to TRS	Incinerator permit	application)	

E. Fuels Not Applicable

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____
 Density: _____ lbs/gal Typical Percent Nitrogen: _____
 Heat Capacity: _____ BTU/lb _____ BTU/gal
 Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average Not Applicable Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

Not Applicable

Brief description of operating characteristics of control devices: _____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

Not Applicable

- A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes No

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

- B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

Yes No

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

- C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

- D. Describe the existing control and treatment technology (if any):

- | | |
|---------------------------|--------------------------|
| 1. Control Device/System: | 2. Operating Principles: |
| 3. Efficiency:* | 4. Capital Costs: |

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

- a. Height: ft. b. Diameter: ft.
- c. Flow Rate: ACFM d. Temperature: °F.
- e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable use additional pages if necessary).

1.

- a. Control Device: b. Operating Principles:
- c. Efficiency:¹ d. Capital Cost:
- e. Useful Life: f. Operating Cost:
- g. Energy:² h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- a. Control Device: b. Operating Principles:
- c. Efficiency:¹ d. Capital Cost:
- e. Useful Life: f. Operating Cost:
- g. Energy:² h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

- k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Costs:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

- k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

- 1. Control Device:
- 2. Efficiency:¹
- 3. Capital Cost:
- 4. Useful Life:
- 5. Operating Cost:
- 6. Energy:²
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:

- a. (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

- (5) Environmental Manager:
- (6) Telephone No.:
- (7) Emissions:¹

Contaminant	Rate or Concentration

(8) Process Rate:¹

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant	Rate or Concentration

(8) Process Rate:¹

10. Reason for selection and description of systems:

¹Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

Not Applicable

A. Company Monitored Data

1. _____ no. sites _____ TSP () SO₂* _____ Wind spd/dir

Period of Monitoring _____ / _____ / _____ to _____ / _____ / _____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

ATTACHMENT A
PROCESS DESCRIPTION

The new black liquor storage tank which stores black liquor from the Pre-Evaporators will be designed to feed any of the four existing evaporator sets. A flow diagram of the process is presented in Figure A-1. The existing evaporators will be used to concentrate the black liquor from 17% solids to approximately 50% solids. The four existing evaporator sets are each designed to accommodate more than 25% of the total black liquor flow.

The No. 2 Evaporator Set will have the following design rate:

Maximum black liquor feed rate = 800 gallons/min @ 17% solids

Specific gravity of black liquor @ 17% solids = 1.05 (8.76 lb/gal)

Black liquor feed rate = 800 gpm x 8.76 lb/gal x 60 min/hr
= 420,480 lb/hr

Black liquor solids feed rate = 420,480 lb/hr x 0.17 = 71,482 lb/hr

416,160 Interim
Permit 61,903

The product rate from the No. 2 Evaporator Set is calculated as follows:

Solids content = 50%

71,482 lb/hr / 0.50 = 142,964 lb/hr @ 50% solids

Non-condensable TRS gases from the No. 2 Evaporator Set hotwell will be sent to the new TRS Incinerator for destruction. A.H. Lundberg Associates has estimated the maximum TRS emissions from the No. 2 Evaporator Set hotwell to be 17 lb/hr (as sulfur, maximum 24-hour average). This estimate is based upon TRS test data from other pulp mills and published literature. Actual TRS emissions may vary considerably. As a result of these uncertainties, maximum TRS emissions for permitting purposes are estimated as 17 lb/hr, 24-hour maximum, and 26 lb/hr, 3-hour maximum (as sulfur). Maximum annual TRS emissions are estimated as follows:

17 lb/hr x 8,760 hr/yr / 2,000 lb/ton = 74 TPY

The Florida TRS rules require that a contingency plan be developed for times when emergency venting of TRS emissions occurs, or when a TRS control device

is shut down for essential maintenance (FAC Rule 17-2.600(4)(c)1.c). G-P proposes to use a tall stack as a backup control device for the No. 2 Black Liquor Evaporator Set when the TRS Incinerator is shutdown for routine maintenance or other emergency situations. Venting of TRS gases through the TRS Incinerator stack (250 ft high) will provide increased dispersion and reduce ground level impacts.

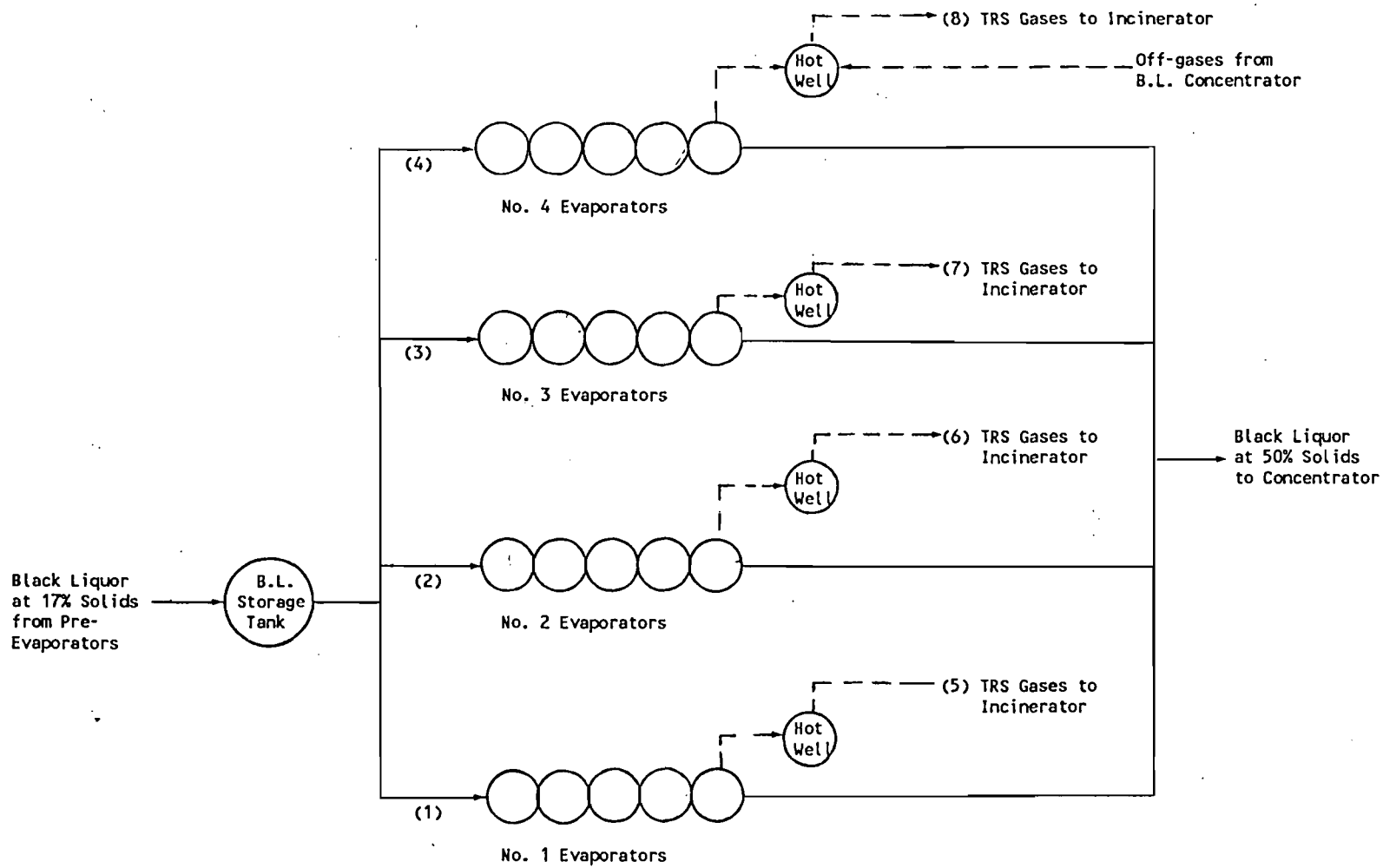


Figure A-1. Flow Diagram of Black Liquor Evaporators

**Permit Application
AC 54-142286**



APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Black Liquor Evaporators [] New¹ [X] Existing¹

APPLICATION TYPE: [X] Construction [] Operation [X] Modification

COMPANY NAME: Georgia-Pacific Corporation COUNTY: Putnam

Identify the specific emission point source(s) addressed in this application (i.e. Lime

Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) No. 3 Black Liquor Evaporator SetSOURCE LOCATION: Street Highway 216 City PalatkaUTM: East 434.0 North 3283.4Latitude 29 ° 41 ' 00" N Longitude 81 ° 40 ' 45 " WAPPLICANT NAME AND TITLE: Henry Hirschman, General ManagerAPPLICANT ADDRESS: P.O. Box 919, Palatka, Florida 32077

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Georgia-Pacific Corp.

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: Henry Hirschman 11/14/87

Henry Hirschman, General Manager
Name and Title (Please Type)

Date: _____ Telephone No. (904) 325-2001

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

¹ See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed David A. Buff

David A. Buff
Name (Please Type)

KBN Engineering and Applied Sciences, Inc.
Company Name (Please Type)

P.O. Box 14288, Gainesville, FL 32604
Mailing Address (Please Type)

Florida Registration No. 19011 Date: 11-10-87 Telephone No. (904) 375-8000

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Off-gases from the No. 3 Black Liquor Evaporator Set will be vented to an incinerator for destruction of TRS. This project is part of the overall TRS compliance plan for the mill. See Attachment A for further description.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction Upon permit issuance Completion of Construction Nov. 12, 1989

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

Permit: A054-116070

Issued: 8/28/86

Expires: 5/12/89

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52
if power plant, hrs/yr _____; if seasonal, describe: _____

F. If this is a new source or major modification, answer the following questions.
(Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? No
 - a. If yes, has "offset" been applied? _____
 - b. If yes, has "Lowest Achievable Emission Rate" been applied? _____
 - c. If yes, list non-attainment pollutants. _____
 2. Does best available control technology (BACT) apply to this source?
If yes, see Section VI. No
 3. Does the State "Prevention of Significant Deterioration" (PSD)
requirement apply to this source? If yes, see Sections VI and VII. No
 4. Do "Standards of Performance for New Stationary Sources" (NSPS)
apply to this source? No
 5. Do "National Emission Standards for Hazardous Air Pollutants"
(NESHAP) apply to this source? No
- H. Do "Reasonably Available Control Technology" (RACT) requirements apply
to this source? No
- a. If yes, for what pollutants? _____
 - b. If yes, in addition to the information required in this form,
any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justifi-
cation for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Black Liquor (BL)			420,480	Fig. A-1 (3)

B. Process Rate, if applicable: (See Section V, Item 1)

- Total Process Input Rate (lbs/hr): 420,480 lb/hr BL @ 17% solids
- Product Weight (lbs/hr) 142,964 lb/hr BL @ 50% solids

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed ² Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	Potential Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
TRS (as sulfur):*							
Max 24-hr avg	17	74	17-2.600 (4)(c)1	Incineration	17	74	Fig A-1 (7)
Max 3-hr avg	26	NA	17-2.600 (4)(c)1	Incineration	26	NA	Fig A-1 (7)

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

* All TRS emissions will be incinerated (refer to TRS Incinerator application)

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
TRS Incinerator	(refer to TRS	Incinerator permit	application)	

E. Fuels Not Applicable

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average Not Applicable Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

Not Applicable

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: N/A ft. Stack Diameter: N/A ft.
 Gas Flow Rate: ACFM DSCFM Gas Exit Temperature: °F.
 Water Vapor Content: % Velocity: N/A FPS

SECTION IV: INCINERATOR INFORMATION

Not Applicable

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste
 Total Weight Incinerated (lbs/hr) Design Capacity (lbs/hr)
 Approximate Number of Hours of Operation per day day/wk wks/yr.
 Manufacturer
 Date Constructed Model No.

	Volume (ft) ³	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: ft. Stack Diameter: Stack Temp.
 Gas Flow Rate: ACFM DSCFM* Velocity: FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: Cyclone Wet Scrubber Afterburner
 Other (specify)

Brief description of operating characteristics of control devices: _____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

Not Applicable

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

Yes No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

D. Describe the existing control and treatment technology (if any).

- | | |
|---------------------------|--------------------------|
| 1. Control Device/System: | 2. Operating Principles: |
| 3. Efficiency:* | 4. Capital Costs: |

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

- a. Height: ft. b. Diameter: ft.
- c. Flow Rate: ACFM d. Temperature: °F.
- e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable use additional pages if necessary).

1.

- a. Control Device: b. Operating Principles:
- c. Efficiency:¹ d. Capital Cost:
- e. Useful Life: f. Operating Cost:
- g. Energy:² h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- a. Control Device: b. Operating Principles:
- c. Efficiency:¹ d. Capital Cost:
- e. Useful Life: f. Operating Cost:
- g. Energy:² h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

- k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Costs:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

- k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

- 1. Control Device:
- 2. Efficiency:¹
- 3. Capital Cost:
- 4. Useful Life:
- 5. Operating Cost:
- 6. Energy:²
- 7. Maintenance Cost:
- 8. Manufacturer:

9. Other locations where employed on similar processes:

- a. (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant	Rate or Concentration

(8) Process Rate:¹

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant	Rate or Concentration

(8) Process Rate:¹

10. Reason for selection and description of systems:

¹Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION
Not Applicable

A. Company Monitored Data

1. _____ no. sites _____ TSP _____ () SO₂* _____ Wind spd/dir

Period of Monitoring _____ / _____ / _____ to _____ / _____ / _____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [] Yes [] No

b. Was instrumentation calibrated in accordance with Department procedures?
[] Yes [] No [] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from _____ / _____ / _____ to _____ / _____ / _____
month day year month day year

2. Surface data obtained from (location) _____

3. Upper air (mixing height) data obtained from (location) _____

4. Stability wind rose (STAR) data obtained from (location) _____

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO ₂	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

ATTACHMENT A
PROCESS DESCRIPTION

The new black liquor storage tank which stores black liquor from the Pre-Evaporators will be designed to feed any of the four existing evaporator sets. A flow diagram of the process is presented in Figure A-1. The existing evaporators will be used to concentrate the black liquor from 17% solids to approximately 50% solids. The four existing evaporator sets are each designed to accommodate more than 25% of the total black liquor flow.

The No. 3 Evaporator Set will have the following design rate:

Maximum black liquor feed rate = 800 gallons/min @ 17% solids

Specific gravity of black liquor @ 17% solids = 1.05 (8.76 lb/gal)

Black liquor feed rate = 800 gpm x 8.76 lb/gal x 60 min/hr
= 420,480 lb/hr

Black liquor solids feed rate = 420,480 lb/hr x 0.17 = 71,482 lb/hr

416,160 Interim Permit 61903

The product rate from the No. 3 Evaporator Set is calculated as follows:

Solids content = 50%

71,482 lb/hr / 0.50 = 142,964 lb/hr @ 50% solids

Non-condensable TRS gases from the No. 3 Evaporator Set hotwell will be sent to the new TRS Incinerator for destruction. A.H. Lundberg Associates has estimated the maximum TRS emissions from the No. 3 Evaporator Set hotwell to be 17 lb/hr (as sulfur, maximum 24-hour average). This estimate is based upon TRS test data from other pulp mills and published literature. Actual TRS emissions may vary considerably. As a result of these uncertainties, maximum TRS emissions for permitting purposes are estimated as 17 lb/hr, 24-hour maximum, and 26 lb/hr, 3-hour maximum (as sulfur). Maximum annual TRS emissions are estimated as follows:

17 lb/hr x 8,760 hr/yr / 2,000 lb/ton = 74 TPY

The Florida TRS rules require that a contingency plan be developed for times when emergency venting of TRS emissions occurs, or when a TRS control device

is shut down for essential maintenance (FAC Rule 17-2.600(4)(c)1.c). G-P proposes to use a tall stack as a backup control device for the No. 3 Black Liquor Evaporator Set when the TRS Incinerator is shutdown for routine maintenance or other emergency situations. Venting of TRS gases through the TRS Incinerator stack (250 ft high) will provide increased dispersion and reduce ground level impacts.

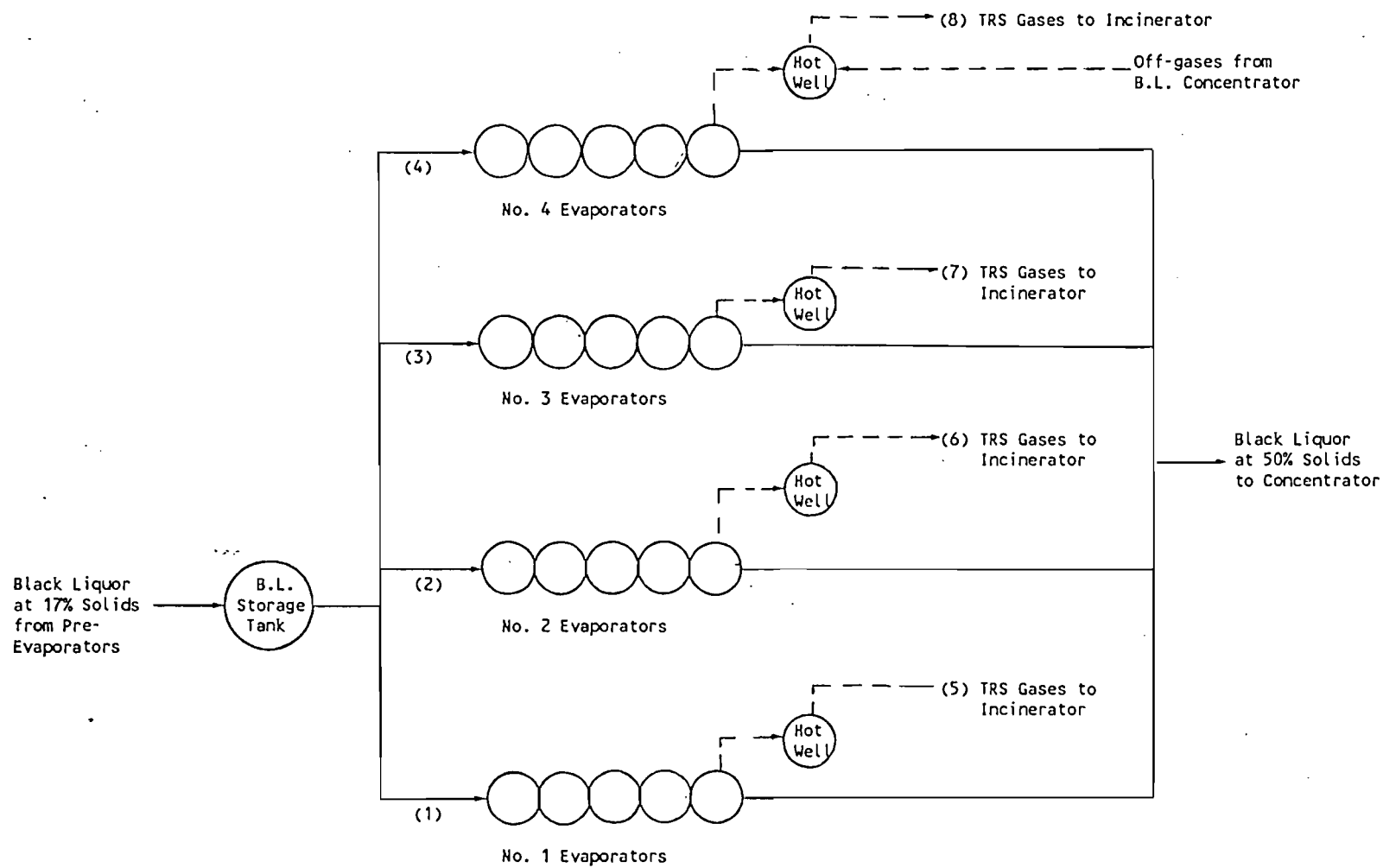


Figure A-1. Flow Diagram of Black Liquor Evaporators

Permit Application
AC 54-142287

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Receipt # 117501
267210
\$500.00
AC 54-142287



APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Black Liquor Evaporators [] New¹ [X] Existing¹
APPLICATION TYPE: [X] Construction [] Operation [X] Modification
COMPANY NAME: Georgia-Pacific Corporation COUNTY: Putnam

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) No. 4 Black Liquor Evaporator Set and Concentrator
SOURCE LOCATION: Street Highway 216 City Palatka
UTM: East 434.0 North 3283.4
Latitude 29 ° 41 ' 00 "N Longitude 81 ° 40 ' 45 "W

APPLICANT NAME AND TITLE: Henry Hirschman, General Manager
APPLICANT ADDRESS: P.O. Box 919, Palatka, Florida 32077

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Georgia-Pacific Corp.
I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: Henry Hirschman "1/14/87"
Henry Hirschman, General Manager
Name and Title (Please Type)
Date: _____ Telephone No. (904) 325-2001

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

¹ See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed David A. Buff

David A. Buff
Name (Please Type)

KBN Engineering and Applied Sciences, Inc.
Company Name (Please Type)

P.O. Box 14288, Gainesville, FL 32604
Mailing Address (Please Type)

Florida Registration No. 19011 Date: 11/10/87 Telephone No. (904) 375-8000

SECTION II: GENERAL PROJECT INFORMATION

- A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Off-gases from the No. 4 Black Liquor Evaporator Set and Black Liquor Concentrator

will be vented to an incinerator for destruction of TRS. This project is part of the overall TRS compliance plan for the mill. See Attachment A for further description.

- B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction Upon permit issuance Completion of Construction Nov. 12, 1989

- C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

- D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

Permit: A054-116071

Issued: 9/15/86

Expires: 5/12/89

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;
if power plant, hrs/yr _____ ; if seasonal, describe: _____

F. If this is a new source or major modification, answer the following questions.
(Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? No
 - a. If yes, has "offset" been applied? _____
 - b. If yes, has "Lowest Achievable Emission Rate" been applied? _____
 - c. If yes, list non-attainment pollutants. _____
 2. Does best available control technology (BACT) apply to this source?
If yes, see Section VI. No
 3. Does the State "Prevention of Significant Deterioration" (PSD)
requirement apply to this source? If yes, see Sections VI and VII. No
 4. Do "Standards of Performance for New Stationary Sources" (NSPS)
apply to this source? No
 5. Do "National Emission Standards for Hazardous Air Pollutants"
(NESHAP) apply to this source? No
- H. Do "Reasonably Available Control Technology" (RACT) requirements apply
to this source? No
- a. If yes, for what pollutants? _____
 - b. If yes, in addition to the information required in this form,
any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justifi-
cation for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Black Liquor (BL)			446,760	Fig. A-1 (4)

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): 446,760 lb/hr BL @ 17% solids

2. Product Weight (lbs/hr) 151,898 lb/hr BL @ 50% solids

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	Potential Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
TRS (as sulfur):*							
Max 24-hr avg	17	74	17-2.600 (4)(c)1	Incineration	17	74	Fig A-1(8)
Max 3-hr avg	26	NA	17-2.600 (4)(c)1	Incineration	26	NA	Fig A-1(8)

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

* All TRS emissions will be incinerated (refer to TRS Incinerator application)

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns). (If applicable)	Basis for Efficiency (Section V Item 5)
TRS Incinerator	(refer to TRS	Incinerator permit	application)	

E. Fuels Not Applicable

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average Not Applicable Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

Not Applicable

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: N/A ft. Stack Diameter: N/A ft.
 Gas Flow Rate: ACFM DSCFM Gas Exit Temperature: °F.
 Water Vapor Content: % Velocity: N/A FPS

SECTION IV: INCINERATOR INFORMATION

Not Applicable

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____
 Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____
 Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____
 Manufacturer _____
 Date Constructed _____ Model No. _____

	Volume (ft) ³	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: ft. Stack Diameter: Stack Temp.
 Gas Flow Rate: ACFM DSCFM* Velocity: FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: Cyclone Wet Scrubber Afterburner
 Other (specify) _____

Brief description of operating characteristics of control devices: _____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test)..
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

Not Applicable

- A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes No

Contaminant	Rate or Concentration

- B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

Yes No

Contaminant	Rate or Concentration

- C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

- D. Describe the existing control and treatment technology (if any):

- | | |
|---------------------------|--------------------------|
| 1. Control Device/System: | 2. Operating Principles: |
| 3. Efficiency:* | 4. Capital Costs: |

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

- a. Height: ft. b. Diameter: ft.
- c. Flow Rate: ACFM d. Temperature: °F.
- e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable use additional pages if necessary).

1.

- a. Control Device: b. Operating Principles:
- c. Efficiency:¹ d. Capital Cost:
- e. Useful Life: f. Operating Cost:
- g. Energy:² h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- a. Control Device: b. Operating Principles:
- c. Efficiency:¹ d. Capital Cost:
- e. Useful Life: f. Operating Cost:
- g. Energy:² h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

¹Explain method of determining efficiency.
²Energy to be reported in units of electrical power - KWH design rate.

- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Costs:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

- 1. Control Device:
- 2. Efficiency:¹
- 3. Capital Cost:
- 4. Useful Life:
- 5. Operating Cost:
- 6. Energy:²
- 7. Maintenance Cost:
- 8. Manufacturer:

9. Other locations where employed on similar processes:

- a. (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant	Rate or Concentration

(8) Process Rate:¹

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant	Rate or Concentration

(8) Process Rate:¹

10. Reason for selection and description of systems:

¹Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

Not Applicable

A. Company Monitored Data

1. _____ no. sites _____ TSP _____ () SO₂* _____ Wind spd/dir

Period of Monitoring _____ / _____ / _____ to _____ / _____ / _____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

ATTACHMENT A
PROCESS DESCRIPTION

The new black liquor storage tank which stores black liquor from the Pre-Evaporators will be designed to feed any of the four existing evaporator sets. A flow diagram of the process is presented in Figure A-1. The existing evaporators will be used to concentrate the black liquor from 17% solids to approximately 50% solids. The four existing evaporator sets are each designed to accommodate more than 25% of the total black liquor flow.

The No. 4 Evaporator Set will have the following design rate:

Maximum black liquor feed rate = 850 gallons/min @ 17% solids

Specific gravity of black liquor @ 17% solids = 1.05 (8.76 lb/gal)

Black liquor feed rate = 850 gpm x 8.76 lb/gal x 60 min/hr
= 446,760 lb/hr

Black liquor solids feed rate = 446,760 lb/hr x 0.17 = 75,949 lb/hr

442,170 Interia
perole 61,903

The product rate from the No. 4 Evaporator Set is calculated as follows:

Solids content = 50%

75,949 lb/hr / 0.50 = 151,898 lb/hr @ 50% solids

Non-condensable gases from the No. 4 Evaporator Set are vented to the No. 4 Evaporator Set hotwell. Non-condensable gases from the Black Liquor Concentrator are also vented to the No. 4 Evaporator Set hotwell. As a result, the Black Liquor Concentrator is also included as part of this permit application. The concentrator receives black liquor from each of the four black liquor evaporator sets and increases the solids concentration from 50% entering the concentrator to 67% leaving the concentrator. The concentrator feeds the No. 4 Recovery Boiler at the G-P mill, and is sized to accommodate the total flow from all evaporators. Input and product rates for the concentrator are calculated below.

1b/2r

1-11

1-8

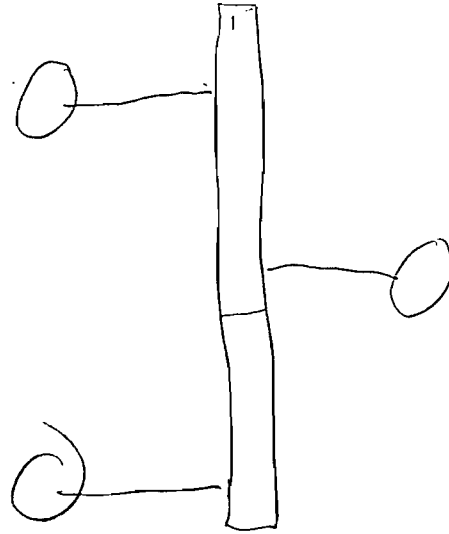
-b

2

1.

1-11

7-13



Input Weight Rate - Black Liquor

No. 1 Evaporator Set product rate - 80,416 lb/hr @ 50% solids
No. 2 Evaporator Set product rate - 142,964 lb/hr @ 50% solids
No. 3 Evaporator Set product rate - 142,964 lb/hr @ 50% solids
No. 4 Evaporator Set product rate - 151,898 lb/hr @ 50% solids
Total 518,242 lb/hr @ 50% solids

Maximum black liquor input rate = 518,242 lb/hr @ 50% solids

Density of black liquor at 50% solids (S.G. = 1.27) = 10.59 lb/gal

518,242 lb/hr / 10.59 lb/gal / 60 min/hr = 816 gpm

Maximum black liquor solids input rate = 518,242 lb/hr x 0.50
= 259,121 lb/hr

How did the solids output become greater than the input

Product Rate - Black Liquor

Concentrators produce black liquor at 67% solids

259,121 lb/hr BLS / 0.67 = 386,748 lb/hr @ 67% solids

Non-condensable TRS gases from the No. 4 Evaporator Set hotwell will be sent to the new TRS Incinerator for destruction. A.H. Lundberg Associates has estimated the maximum TRS emissions from the No. 4 Evaporator Set hotwell to be 17 lb/hr (as sulfur, 24-hour maximum). This estimate is based upon TRS test data from other pulp mills and published literature. Actual TRS emissions may vary considerably. As a result of these uncertainties, maximum TRS emissions for permitting purposes are estimated as 17 lb/hr, 24-hour maximum, and 26 lb/hr, 3-hour maximum (as sulfur). Maximum annual TRS emissions are estimated as follows:

gas volume?

17 lb/hr x 8,760 hr/yr / 2,000 lb/ton = 74 TPY

The Florida TRS rules require that a contingency plan be developed for times when emergency venting of TRS emissions occurs, or when a TRS control device is shut down for essential maintenance (FAC Rule 17-2.600(4)(c)1.c). G-P proposes to use a tall stack as a backup control device for the No. 4 Black Liquor Evaporator Set when the TRS Incinerator is shutdown for routine maintenance or other emergency situations. Venting of TRS gases through the

TRS Incinerator stack (250 ft high) will provide increased dispersion and reduce ground level impacts.

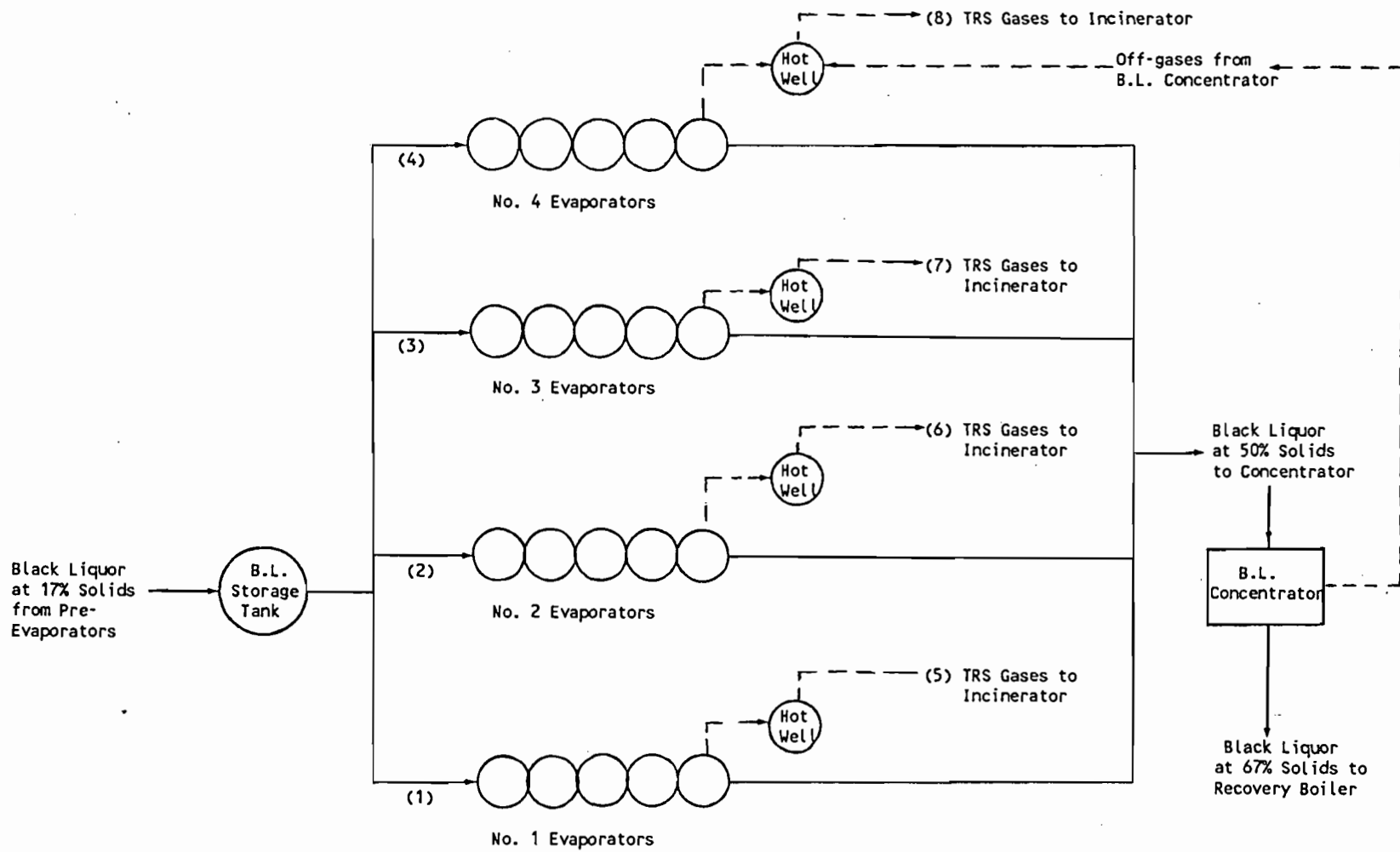


Figure A-1. Flow Diagram of G-P Black Liquor Evaporators and Concentrator

**Permit Application
AC 54-142288**



APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Condensate Stripper [] New¹ [] Existing¹

APPLICATION TYPE: [] Construction [] Operation [] Modification

COMPANY NAME: Georgia-Pacific Corporation COUNTY: Putnam

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Condensate Stripper

SOURCE LOCATION: Street Highway 216 City Palatka

UTM: East 434.0 North 3283.4

Latitude 29 ° 41 ' 00 "N Longitude 81 ° 40 ' 45 "W

APPLICANT NAME AND TITLE: Henry Hirschman, General Manager

APPLICANT ADDRESS: P.O. Box 919, Palatka, Florida 32077

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Georgia-Pacific Corp.

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: Henry Hirschman 11/14/87

Henry Hirschman, General Manager
Name and Title (Please Type)

Date: _____ Telephone No. (904) 325-2001

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

¹ See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed David A. Buff

David A. Buff

Name (Please Type)

KBN Engineering and Applied Sciences, Inc.

Company Name (Please Type)

P.O. Box 14288, Gainesville, FL 32604

Mailing Address (Please Type)

Florida Registration No. 19011 Date: 11/10/87 Telephone No. (904) 375-8000

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

A condensate stripper will be constructed which will strip TRS from the condensate streams of the Black Liquor Pre-Evaporators and the Turpentine Condenser. Methanol will be recovered and used as fuel in the new TRS incinerator. This project is part of the overall TRS compliance plan for the mill. See Attachment A for further description

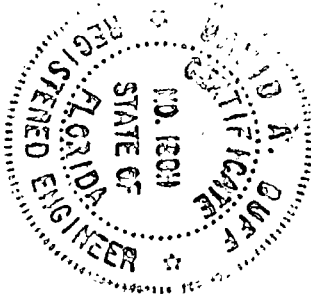
B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction Upon permit issuance Completion of Construction Nov. 12, 1989

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

Not Applicable



E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52
if power plant, hrs/yr _____; if seasonal, describe: _____

F. If this is a new source or major modification, answer the following questions.
(Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? No
a. If yes, has "offset" been applied? _____
b. If yes, has "Lowest Achievable Emission Rate" been applied? _____
c. If yes, list non-attainment pollutants. _____

2. Does best available control technology (BACT) apply to this source?
If yes, see Section VI. No

3. Does the State "Prevention of Significant Deterioration" (PSD)
requirement apply to this source? If yes, see Sections VI and VII. No

4. Do "Standards of Performance for New Stationary Sources" (NSPS)
apply to this source? No

5. Do "National Emission Standards for Hazardous Air Pollutants"
(NESHAP) apply to this source? No

H. Do "Reasonably Available Control Technology" (RACT) requirements apply
to this source? No

a. If yes, for what pollutants? _____

b. If yes, in addition to the information required in this form,
any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justifi-
cation for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Pre-Evap. Condensate			45,181	Fig A-1 (1)
Turpentine Condensate			20,016	Fig A-1 (2)
Minor Miscellaneous Sources			6,520	Fig A-1 (3)

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): 71,717

2. Product Weight (lbs/hr): 446 lb/hr methanol

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed ² Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	Potential Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
TRS (as sulfur):*							
Max 24-hr avg	38	166	17-2.600 (4)(c)1	Incineration	38	166	Fig A-1(4)
Max 3-hr avg	58	NA	17-2.600 (4)(c)1	Incineration	58	NA	Fig A-1(4)

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

* All TRS emissions will be incinerated (refer to TRS Incinerator application)

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns). (If applicable)	Basis for Efficiency (Section V Item 5)
TRS Incinerator	(see TRS Incinerator permit application)			

E. Fuels Not Applicable

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average Not Applicable Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

Water from steam stripper will be recycled back into process

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: Refer to TRS Incinerator application ft. Stack Diameter: _____ ft.
 Gas Flow Rate: _____ ACFM _____ DSCFM Gas Exit Temperature: _____ °F.
 Water Vapor Content: _____ % Velocity: _____ FPS

SECTION IV: INCINERATOR INFORMATION
 Not Applicable

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____
 Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____
 Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____
 Manufacturer _____
 Date Constructed _____ Model No. _____

	Volume (ft) ³	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp. _____
 Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: Cyclone Wet Scrubber Afterburner
 Other (specify) _____

Brief description of operating characteristics of control devices: _____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

- 9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
- 10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

A. Are standards of performance for ^{Not Applicable} new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes No

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____
_____	_____

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

Yes No

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____
_____	_____

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____
_____	_____

D. Describe the existing control and treatment technology (if any).

- | | |
|---------------------------|--------------------------|
| 1. Control Device/System: | 2. Operating Principles: |
| 3. Efficiency:* | 4. Capital Costs: |

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

- a. Height: ft. b. Diameter: ft.
- c. Flow Rate: ACFM d. Temperature: °F.
- e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable use additional pages if necessary).

1.

- a. Control Device: b. Operating Principles:
- c. Efficiency:¹ d. Capital Cost:
- e. Useful Life: f. Operating Cost:
- g. Energy:² h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- a. Control Device: b. Operating Principles:
- c. Efficiency:¹ d. Capital Cost:
- e. Useful Life: f. Operating Cost:
- g. Energy:² h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:¹

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:²

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

- (5) Environmental Manager:
- (6) Telephone No.:
- (7) Emissions:¹

Contaminant	Rate or Concentration

(8) Process Rate:¹

- b. (1) Company:
- (2) Mailing Address:
- (3) City: (4) State:
- (5) Environmental Manager:
- (6) Telephone No.:
- (7) Emissions:¹

Contaminant	Rate or Concentration

(8) Process Rate:¹

10. Reason for selection and description of systems:

¹Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

Not Applicable

A. Company Monitored Data

1. _____ no. sites _____ TSP () SO₂* _____ Wind spd/dir

Period of Monitoring _____ / _____ / _____ to _____ / _____ / _____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

- a. Was instrumentation EPA referenced or its equivalent? Yes No
- b. Was instrumentation calibrated in accordance with Department procedures?
 Yes No Unknown

B. Meteorological Data Used for Air Quality Modeling

- 1. _____ Year(s) of data from _____ / _____ / _____ to _____ / _____ / _____
month day year month day year
- 2. Surface data obtained from (location) _____
- 3. Upper air (mixing height) data obtained from (location) _____
- 4. Stability wind rose (STAR) data obtained from (location) _____

C. Computer Models Used

- 1. _____ Modified? If yes, attach description.
- 2. _____ Modified? If yes, attach description.
- 3. _____ Modified? If yes, attach description.
- 4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO ₂	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

ATTACHMENT A
PROCESS DESCRIPTION

A condensate stripper will be constructed which will use steam to strip TRS from the Pre-Evaporators condensate stream, the Turpentine Condenser condensate stream and other miscellaneous condensate streams. TRS gases from the stripper will be vented to the TRS Incinerator for destruction of TRS emissions. Methanol will also be recovered in the steam stripper. An average of 446 lb/hr of methanol is expected to be recovered. This methanol will be stored in a holding tank and burned as fuel in the TRS Incinerator. A flow diagram of the system is shown in Figure A-1.

How much?
What other sources

The process inputs to the Condensate Stripper consist of condensate from the Black Liquor Pre-Evaporators (45,181 lb/hr) and the condensate from the Turpentine Condenser system (20,016 lb/hr). Other minor miscellaneous sources of condensate will add an additional 6,520 lb/hr of condensate. Total process input rate is:

What sources

$$45,181 + 20,016 + 6,520 = 71,717 \text{ lb/hr}$$

A.H. Lundberg Associates has estimated maximum TRS emissions from the Condensate Stripper to be 38 lb/hr (as sulfur). This estimate is based upon data from other mills and published literature. Due to the uncertainty in this estimate, the Condensate Stripper is being permitted for a maximum TRS emission rate of 38 lb/hr, 24-hour average, and 58 lb/hr, 3-hour average (as sulfur). Maximum annual average TRS emissions are calculated as follows:

$$38 \text{ lb/hr} \times 8,760 \text{ hr/yr} / 2,000 \text{ lb/ton} = 166 \text{ TPY}$$

The Florida TRS rules require that a contingency plan be developed for condensate stripper systems for times when emergency venting of TRS emissions occurs, or when a TRS control device is shut down for essential maintenance (FAC Rule 17-2.600(4)(c)1.c). G-P, proposes to use a tall stack as a backup control device for the Condensate Stripper when the TRS Incinerator is shutdown for essential maintenance or for other emergency situations. Venting of TRS emissions through the TRS Incinerator stack

Cond

(250 feet height) will provide increased dispersion and reduces ground level impacts.

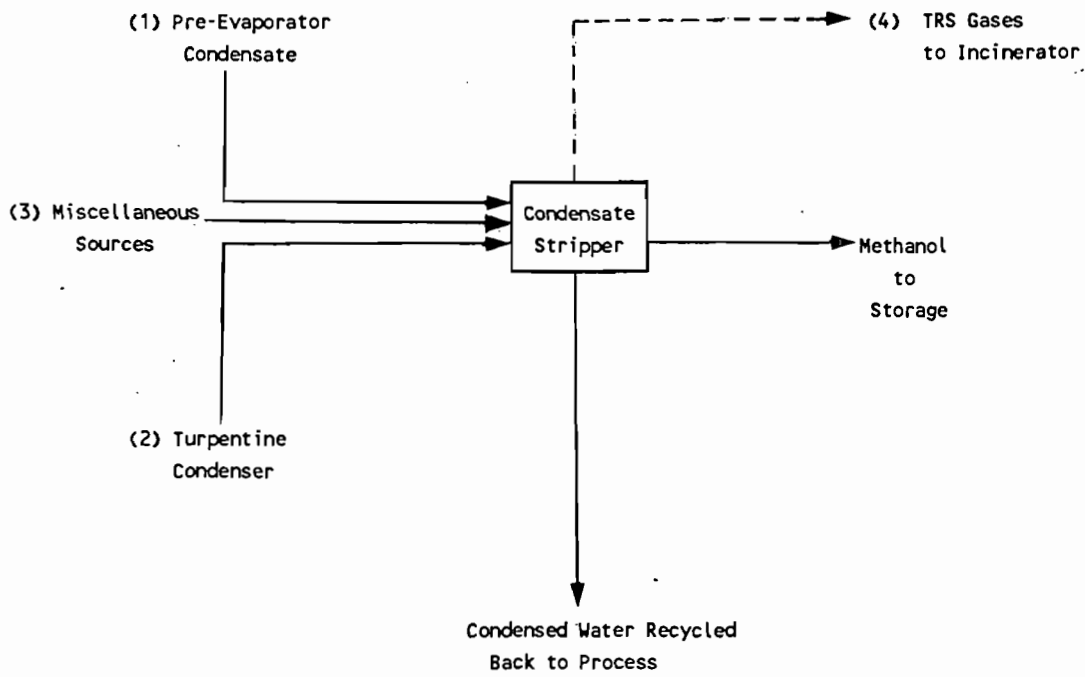


Figure A-1. Flow Diagram of Condensate Stripper System

Permit Application
AC 54-142290

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Receipt # 117501
√ # 207210
\$ 750.00
AC 54-142290



APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Turpentine Condenser [] New¹ [X] Existing¹

APPLICATION TYPE: [X] Construction [] Operation [X] Modification

COMPANY NAME: Georgia-Pacific Corporation COUNTY: Putnam

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Turpentine Condenser

SOURCE LOCATION: Street Highway 216 City Palatka

UTM: East 434.0 North 3283.4

Latitude 29° 41' 00"N Longitude 81° 40' 45"W

APPLICANT NAME AND TITLE: Henry Hirschman, General Manager

APPLICANT ADDRESS: P.O.Box 919, Palatka, Florida 32077

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Georgia-Pacific Corporation

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: Henry Hirschman 11/14/87
Henry Hirschman, General Manager
Name and Title (Please Type)

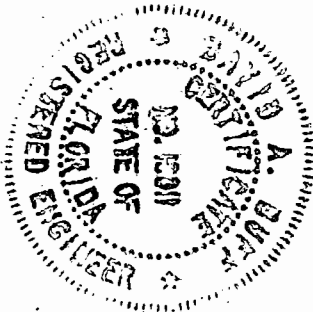
Date: _____ Telephone No. (909) 325-2001

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

¹ See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed David A. Buff

David A. Buff
Name (Please Type)

KBN Engineering and Applied Sciences, Inc.
Company Name (Please Type)

P.O. Box 14288, Gainesville, Florida 32604
Mailing Address (Please Type)

Florida Registration No. 19011 Date: 11/10/87 Telephone No. (904) 375-8000

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

The off-gases from the existing Turpentine Condenser will be routed to a TRS Incinerator for destruction. This project is part of the overall TRS compliance plan for the mill. See Attachment A for further description.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction upon permit issuance Completion of Construction November 12, 1989

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

Permit: A054-116073

Issued: 8/28/86

Expires: 5/12/89

E. Requested permitted equipment operating time: hrs/day 24; days/wk 7; wks/yr 52
if power plant, hrs/yr _____; if seasonal, describe: _____

F. If this is a new source or major modification, answer the following questions.
(Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? No
a. If yes, has "offset" been applied? _____
b. If yes, has "Lowest Achievable Emission Rate" been applied? _____
c. If yes, list non-attainment pollutants. _____

2. Does best available control technology (BACT) apply to this source?
If yes, see Section VI. No

3. Does the State "Prevention of Significant Deterioration" (PSD)
requirement apply to this source? If yes, see Sections VI and VII. No

4. Do "Standards of Performance for New Stationary Sources" (NSPS)
apply to this source? No

5. Do "National Emission Standards for Hazardous Air Pollutants"
(NESHAP) apply to this source? No

H. Do "Reasonably Available Control Technology" (RACT) requirements apply
to this source? No

a. If yes, for what pollutants? _____

b. If yes, in addition to the information required in this form,
any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justifi-
cation for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Wood chips			291,417 (dry)	Digester off-gases

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): 291,417 lb/hr (dry)

2. Product Weight (lbs/hr): 932 lb/hr turpentine

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	Potential Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
TRS(as sulfur)*							
Max.24-hr avg.	21	92	17-2.600 (4)(c)1.	Incineration	21	92	Fig.A-1(4)
Max.3-hr avg.	32	NA	17-2.600 (4)(c)1.	Incineration	32	NA	Fig.A-1(4)

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

* All TRS emissions will be incinerated (refer to TRS Incineration application)

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
TRS Incinerator	(see TRS Incinerator permit application)			

E. Fuels Not Applicable

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average Not Applicable Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

Condensate sent to condensate stripper for treatment. +

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: Refer to TRS Incinerator permit application ft. Stack Diameter: _____ ft.
 Gas Flow Rate: _____ ACFM _____ DSCFM Gas Exit Temperature: _____ °F.
 Water Vapor Content: _____ % Velocity: _____ FPS

SECTION IV: INCINERATOR INFORMATION

Not Applicable

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume (ft) ³	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: Cyclone Wet Scrubber Afterburner
 Other (specify) _____

Brief description of operating characteristics of control devices: _____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY
Not Applicable

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

Yes No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

D. Describe the existing control and treatment technology (if any).

- | | |
|---------------------------|--------------------------|
| 1. Control Device/System: | 2. Operating Principles: |
| 3. Efficiency:* | 4. Capital Costs: |

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height:

ft.

b. Diameter:

ft.

c. Flow Rate:

ACFM

d. Temperature:

°F.

e. Velocity:

FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency:¹
- d. Capital Costs:
- e. Useful Life:
- f. Operating Cost:
- g. Energy:²
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

- 1. Control Device:
- 2. Efficiency:¹
- 3. Capital Cost:
- 4. Useful Life:
- 5. Operating Cost:
- 6. Energy:²
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:

- a. (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

- (5) Environmental Manager:
- (6) Telephone No.:
- (7) Emissions:¹

Contaminant	Rate or Concentration

(8) Process Rate:¹

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant	Rate or Concentration

(8) Process Rate:¹

10. Reason for selection and description of systems:

¹Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

Not Applicable

A. Company Monitored Data

1. _____ no. sites _____ TSP _____ () SO₂* _____ Wind spd/dir

Period of Monitoring _____ / _____ / _____ to _____ / _____ / _____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [] Yes [] No

b. Was instrumentation calibrated in accordance with Department procedures?

[] Yes [] No [] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from _____ / _____ / _____ to _____ / _____ / _____
month day year month day year

2. Surface data obtained from (location) _____

3. Upper air (mixing height) data obtained from (location) _____

4. Stability wind rose (STAR) data obtained from (location) _____

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant

Emission Rate

TSP _____ grams/sec

SO₂ _____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

ATTACHMENT A
PROCESS DESCRIPTION

The existing Turpentine Condenser will be modified to collect the non-condensable gases from the condenser and to route the gases to the TRS Incinerator. TRS in the gases will be destroyed in the incinerator (refer to TRS Incinerator permit application). The Turpentine Condenser receives off-gases from the digesters and condenses the turpentine entrained in the gases. The source of turpentine is the pine wood chips used in the digesting process. A flow diagram of the process is presented in Figure A-1.

Process input rate of wood chips to the Turpentine Condenser is the same as presented in the No. 3 Digesting Accumulator Tank permit application (291,417 lb/hr, dry). One cord of wet wood chips yields approximately 1.2 gallons of turpentine. The following calculation shows the product rate:

$$291,417 \text{ lb/hr wood chips (dry)} = 539,661 \text{ lb/hr wood chips}$$

- 218,466 Incineration permit (wet @ 46% H₂O)

$$1 \text{ cord} = 5,000 \text{ lb wet wood}$$

$$\begin{aligned} \text{Turpentine produced} &= 539,661 \text{ lb/hr} / 5,000 \text{ lb/cord} \times 1.2 \text{ gal/cord} \\ &= 129.5 \text{ gal/hr} \end{aligned}$$

$$\text{Turpentine} = 7.2 \text{ lb/gal}$$

$$129.5 \text{ gal/hr} \times 7.2 \text{ lb/gal} = 932 \text{ lb/hr}$$

When hardwood is processed in the digesters, no turpentine is produced.

Condensate from the Turpentine Condenser will be sent to the Condensate Stripper for TRS removal and methanol recovery. The amount of condensate which will be generated in the Turpentine Condenser is estimated at 40 gal/min, or 20,016 lb/hr, maximum.

what happens to digester relief gases when hardwood is cooked

The Florida TRS rules require that a contingency plan be developed for digester systems for times when emergency venting of TRS emissions occurs, or when a TRS control device is shut down for essential maintenance (FAC

Rule 17-2.600(4)(c)1.c). G-P proposes to utilize a tall stack as backup control device for the Turpentine Condenser system when the TRS Incinerator is shutdown for essential maintenance or for other emergency situations. Venting of TRS gases through the TRS Incinerator stack (250 feet high) will provide increased dispersion and reduce ground level impacts.

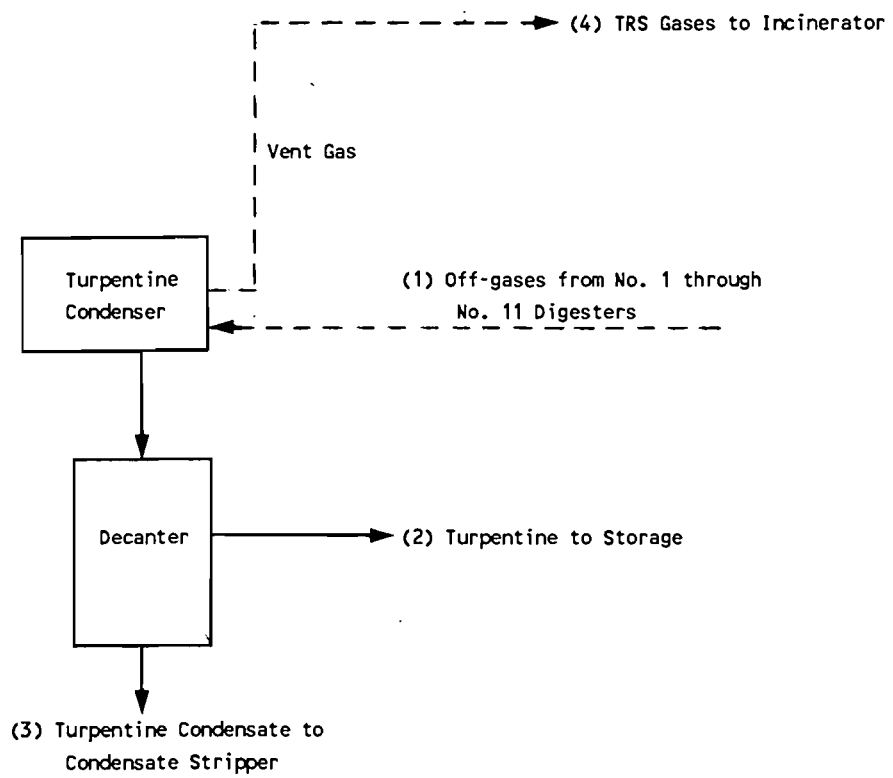


Figure A-1. Flow Diagram of Turpentine Condenser System

ATTACHMENT B
EMISSION ESTIMATES

TRS emission estimates are based upon TRS testing at other pulp mills, published data and engineering judgement. The design flow rate of non-condensable gases from the Turpentine Condenser, as provided by A.H.

Lundberg and Associates, Inc., is as follows:

125 acfm @ 120°F

TRS (as sulfur) emissions - 21 lb/hr

Because of the potential variability in TRS emissions from the process, maximum TRS emissions (as sulfur) for permitting purposes are as follows:

Maximum 24-hour average: 21 lb/hr

Maximum 3-hour average: 32 lb/hr

Maximum annual TRS emissions are calculated as follows:

$21 \text{ lb/hr} \times 8,760 \text{ hr/yr} / 2,000 \text{ lb/ton} = 92 \text{ TPY}$

Permit Application
AC 54-142291

Digester Blow 440 acfm @ 120 F

Relief 125 acfm @ 120 F

Pre-Evap 320 acfm @ 135 F

1. Evap

2. Evap

3. Evap

4. Evap + Conc

Condens stripper

DEPARTMENT OF ENVIRONMENTAL REGULATION

Receipt # 117501
√ # 207210
\$1000.00
ACS4-142291



APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: TRS Incinerator New¹ Existing¹

APPLICATION TYPE: Construction Operation Modification

COMPANY NAME: Georgia-Pacific Corporation COUNTY: Putnam

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) TRS Incinerator

SOURCE LOCATION: Street Highway 216 City Palatka

UTM: East 434.0 North 3283.4

Latitude 29 ° 41 ' 00 "N Longitude 81 ° 40 ' 45 "W

APPLICANT NAME AND TITLE: Henry Hirschman, General Manager

APPLICANT ADDRESS: P.O. Box 919, Palatka, Florida 32077

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Georgia-Pacific Corp.

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: Henry Hirschman 11/4/87
Henry Hirschman, General Manager
Name and Title (Please Type)

Date: _____ Telephone No. (904)325-2001

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

¹ See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed David A. Buff

David A. Buff

Name (Please Type)

KBN Engineering and Applied Sciences, Inc.

Company Name (Please Type)

P.O. Box 14288, Gainesville, Florida 32604

Mailing Address (Please Type)

Florida Registration No. 19011

Date: 11/10/87

Telephone No. (904) 375-8000

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

An incinerator will be constructed to incinerate non-condensable TRS gases from the new No. 3 Digester Accumulator Tank, new Black Liquor Pre-Evaporators, existing Black Liquor Evaporators, existing Turpentine Condenser, and a new Condensate Stripper. This project is part of the overall TRS compliance plan for the mill. The project will result in full compliance with the Florida TRS regulations. Refer to Attachment A for further description.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction upon permit issuance Completion of Construction May 12, 1989

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

Not Applicable

E. Requested permitted equipment operating time: hrs/day 24; days/wk 7; wks/yr 52
if power plant, hrs/yr _____; if seasonal, describe: _____

F. If this is a new source or major modification, answer the following questions.
(Yes or No)

- 1. Is this source in a non-attainment area for a particular pollutant? No
 - a. If yes, has "offset" been applied? _____
 - b. If yes, has "Lowest Achievable Emission Rate" been applied? _____
 - c. If yes, list non-attainment pollutants. _____
- 2. Does best available control technology (BACT) apply to this source?
If yes, see Section VI. No
- 3. Does the State "Prevention of Significant Deterioration" (PSD)
requirement apply to this source? If yes, see Sections VI and VII. No
- 4. Do "Standards of Performance for New Stationary Sources" (NSPS)
apply to this source? No
- 5. Do "National Emission Standards for Hazardous Air Pollutants"
(NESHAP) apply to this source? No

H. Do "Reasonably Available Control Technology" (RACT) requirements apply
to this source? No

- a. If yes, for what pollutants? _____
- b. If yes, in addition to the information required in this form,
any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justifi-
cation for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Not Applicable

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): Not Applicable

2. Product Weight (lbs/hr): Not Applicable

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed Emission Rate per Rule 17-2	Allowable Emission lbs/hr	Potential Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Sulfur dioxide	1,200	3,434	N/A	N/A	1,200	3,434	Fig. A-1(10)
Particulate	0.055	0.24	N/A	N/A	0.055	0.24	Fig A-1(10)
Nitrogen oxides	1.54	6.75	N/A	N/A	1.54	6.75	Fig A-1(10)
Carbon Monoxide	0.38	1.66	N/A	N/A	0.38	1.66	Fig A-1(10)
Volatile Org. Cmpds.	0.064	0.28	N/A	N/A	0.064	0.28	Fig A-1(10)
Total Reduced Sulfur	0.12	0.53	5 ppm @10% O ₂	0.12	0.12	0.53	Fig A-1(10)

¹See Section V, Item 2. 17-2.600(4)(c)6

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Incinerator (vendor not yet selected)	TRS	99.97%	Not Applicable	See Att. C

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Methanol	124 gal/hr	124 gal/hr	8.0
Natural gas*	Normally zero	0.00762 MMCF/hr	8.0
*As startup and supplementary fuel only			

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis: Methanol/Natural gas

Percent Sulfur: negligible Percent Ash: negligible

Density: _____ lbs/gal Typical Percent Nitrogen: negligible

Heat Capacity: 9,781 (methanol) BTU/lb 1050 Btu/scf (natural gas) BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average Not applicable Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

None generated

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 250 ft. Stack Diameter: 3.2 ft.
 Gas Flow Rate: 21,440 ACFM 10,100 DSCFM Gas Exit Temperature: 550 °F.
 Water Vapor Content: 10 % Velocity: 44.4 FPS

SECTION IV: INCINERATOR INFORMATION

Refer to Attachment C

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume (ft) ³	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diameter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: Cyclone Wet Scrubber Afterburner
 Other (specify) _____

Brief description of operating characteristics of control devices: _____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

- 9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
- 10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

Not Applicable

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 61 applicable to the source?

[] Yes [] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (if yes, attach copy)

[] Yes [] No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

D. Describe the existing control and treatment technology (if any).

- 1. Control Device/System:
- 2. Operating Principles:
- 3. Efficiency:*
- 4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

- a. Height: ft. b. Diameter: ft.
- c. Flow Rate: ACFM d. Temperature: °F.
- e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable use additional pages if necessary).

1.

- a. Control Device: b. Operating Principles:
- c. Efficiency:¹ d. Capital Cost:
- e. Useful Life: f. Operating Cost:
- g. Energy:² h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- a. Control Device: b. Operating Principles:
- c. Efficiency:¹ d. Capital Cost:
- e. Useful Life: f. Operating Cost:
- g. Energy:² h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:¹

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:²

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:¹

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:²

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

- (5) Environmental Manager:
- (6) Telephone No.:
- (7) Emissions:¹

Contaminant	Rate or Concentration

(8) Process Rate:¹

- b. (1) Company:
- (2) Mailing Address:
- (3) City: (4) State:
- (5) Environmental Manager:
- (6) Telephone No.:
- (7) Emissions:¹

Contaminant	Rate or Concentration

(8) Process Rate:¹

10. Reason for selection and description of systems:

¹Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data Not Applicable

1. _____ no. sites _____ TSP _____ () SO₂* _____ Wind spd/dir

Period of Monitoring _____ / _____ / _____ to _____ / _____ / _____

month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [] Yes [] No

b. Was instrumentation calibrated in accordance with Department procedures?
[] Yes [] No [] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from _____ / _____ / _____ to _____ / _____ / _____
month day year month day year

2. Surface data obtained from (location) _____

3. Upper air (mixing height) data obtained from (location) _____

4. Stability wind rose (STAR) data obtained from (location) _____

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO ²	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

ATTACHMENT A
PROJECT DESCRIPTION

An incinerator will be constructed and operated to destroy non-condensable TRS gases collected from the following sources at the G-P mill:

- No. 3 Accumulator Tank (new)
- Pre-Evaporators (new)
- No. 1 Black Liquor Evaporator Set (existing)
- No. 2 Black Liquor Evaporator Set (existing)
- No. 3 Black Liquor Evaporator Set (existing)
- No. 4 Black Liquor Evaporator Set (existing)
- Turpentine Condenser (existing)
- Condensate Stripper (new)

A flow diagram of the system is presented in Figure A-1. The planned location of the TRS Incinerator is shown in Figure A-2.

Each of these sources is described in separate air construction permit applications being submitted in conjunction with this TRS Incinerator application. The TRS Incinerator will result in compliance with Florida's TRS regulations [FAC Rule 17-2.600(4)], which require that all TRS emissions from digesters, blow tanks, accumulators, evaporators and concentrators be incinerated. G-P is selecting the stand-alone incinerator option as the most effective means of complying with the regulations at their mill.

Estimated maximum emission rates from the TRS Incinerator are presented in Attachment B. Incinerator design information is presented in Attachment C. The incinerator will be designed for a minimum residence time of 0.5 seconds and a combustion zone temperature of 1500°F to achieve TRS destruction. The incinerator will be fueled primarily by methanol recovered from the pulping process in the Condensate Stripper. Natural gas will be used as backup and supplementary fuel only when needed to support the combustion process.

SO₂ generated by the incinerator will affect the ambient air quality in the vicinity of the G-P mill. An air quality impact analysis has been conducted

which addresses compliance with ambient air quality standards and allowable Prevention of Significant Deterioration (PSD) increments. The analysis is contained in a separate report which will be submitted to FDER as part of this permit application.

The TRS rules require continuous monitoring of the combustion zone temperature in the incinerator and the oxygen content of the incinerator exhaust gases [FAC Rule 17-2.710(3)(c)]. G-P will install, certify, and operate the temperature monitor in accordance with the TRS regulations. Monitoring of the oxygen content of the flue gases in the stack will not provide a true indication of combustion efficiency because the stack will be of the natural draft type and considerable dilution air enters the stack at the bottom of the stack. The estimated oxygen content in the stack is estimated at 16% O₂. It is also not practical to measure O₂ content in the incinerator because of the high temperature (approximately 1,500°F). It is therefore requested that the requirement for installation of an oxygen monitor on the incinerator be waived. Monitoring of combustion temperature alone provides reasonable assurance that TRS in the gases are being destroyed.

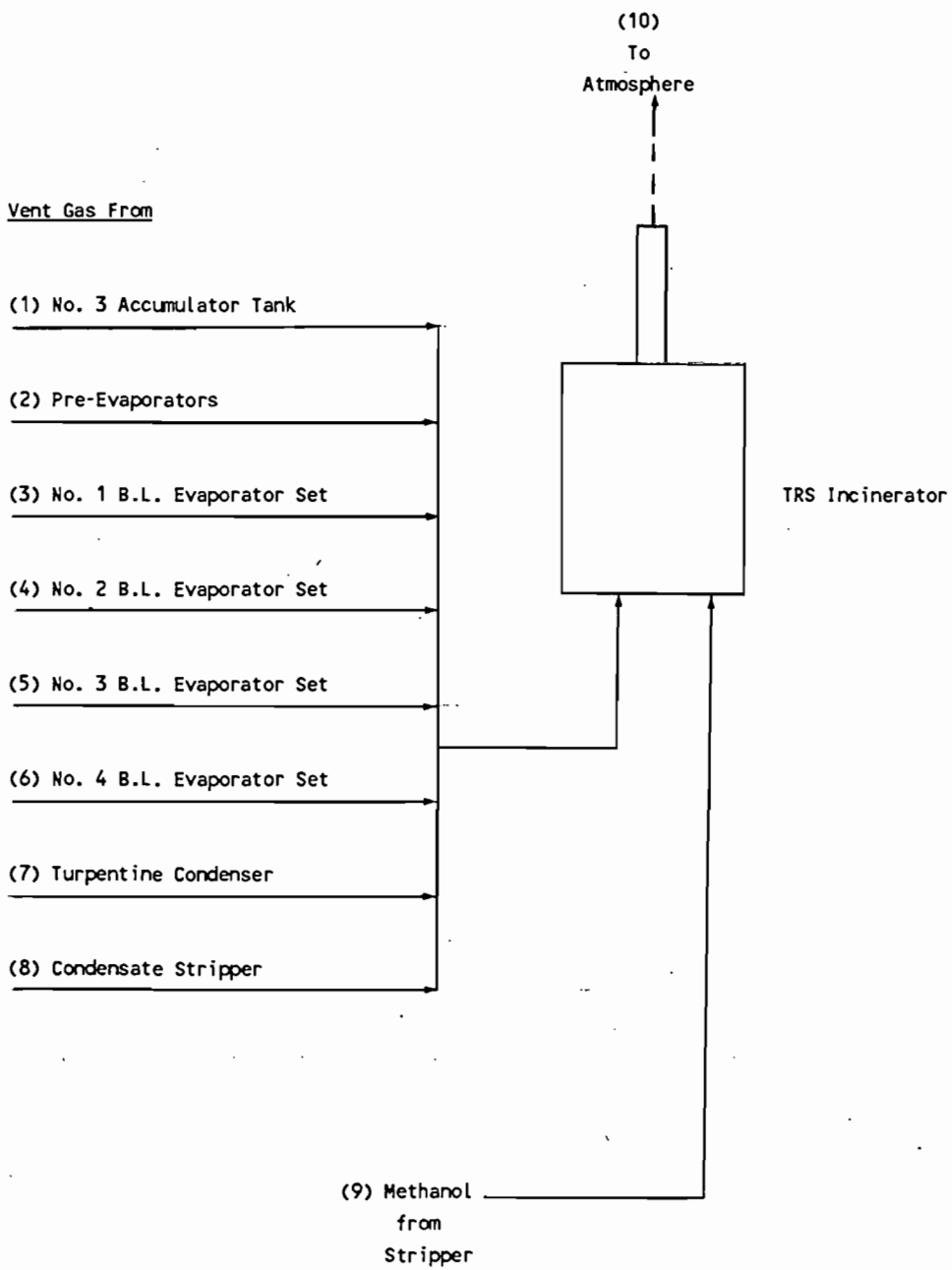


Figure A-1. Flow Diagram of TRS Incinerator System

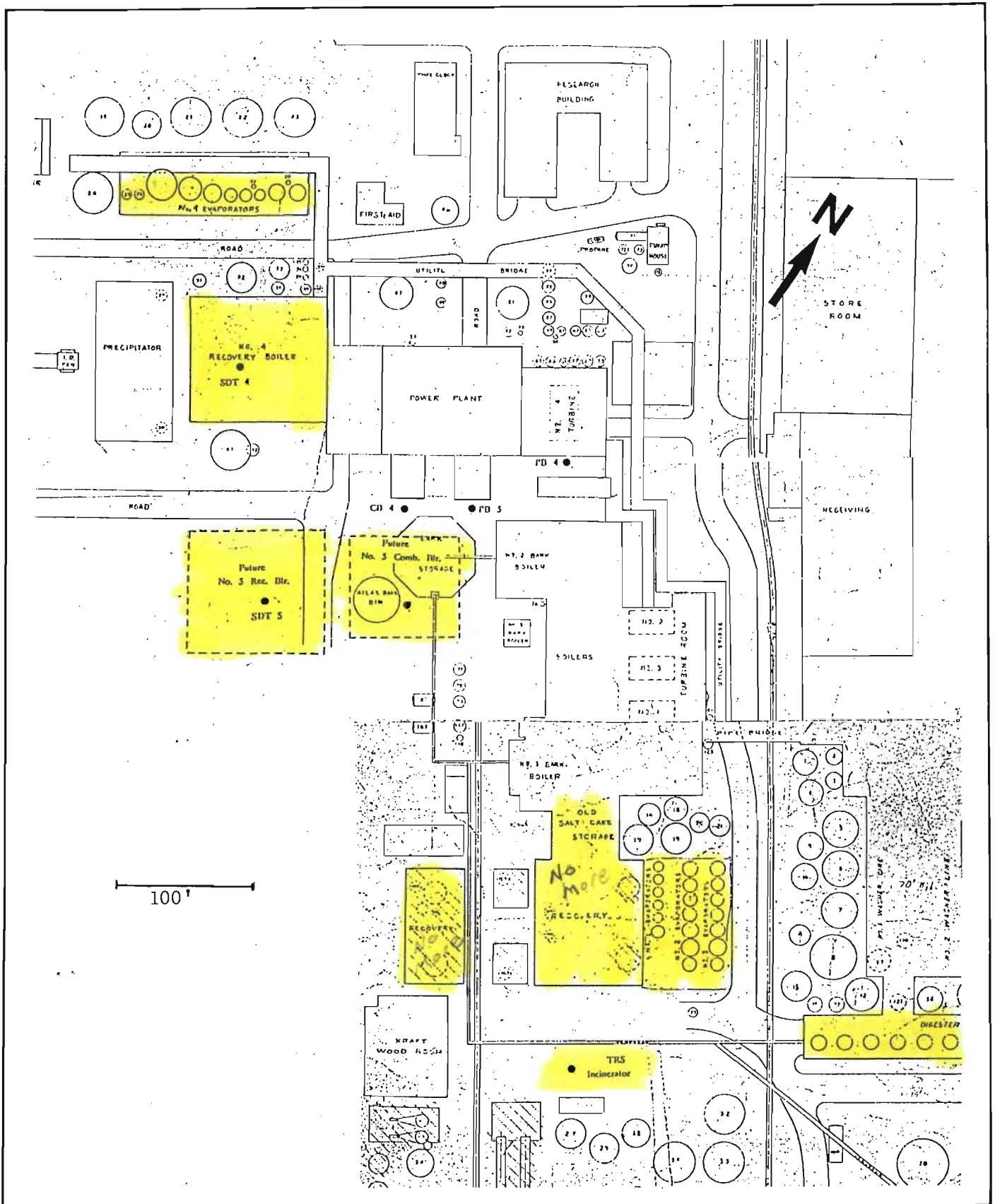


Figure A-2. Location of TRS Incinerator



52.53
34.25
149.50
234,090

X $\frac{17}{26}$

**ATTACHMENT B
EMISSION ESTIMATES**

I. SULFUR DIOXIDE (SO₂)

SO₂ emissions are based upon TRS content of gases to be incinerated. Fuel burning (methanol and natural gas) contributes negligible amounts of SO₂ to exhaust gases. Estimated TRS content of the gas streams vented to the incinerator and resulting SO₂ emissions are presented below:

Gas Stream Source	TRS Content (lb/hr)*		SO ₂ Emissions (lb/hr)	
	Maximum 24-hour	Maximum 3-hour	Maximum 24-hour	Maximum 3-hour
(1) No. 3 Accumulator Tank	196	300	392	600 ^{#1,000}
(2) Pre-Evaporators	69	106	138	212 ^{#1,000}
(3) No. 1 B.L. Evaporator Set	17	26	34	52 ^{#500}
(4) No. 2 B.L. Evaporator Set	17	26	34	52 ^{#500}
(5) No. 3 B.L. Evaporator Set	17	26	34	52 ^{#500}
(6) No. 4 B.L. Evaporator Set	17	26	34	52 ^{#500}
(7) Turpentine Condenser	21	32	42	64 ^{#750}
(8) Condensate Stripper	<u>38</u>	<u>58</u>	<u>76</u>	<u>116</u> ^{#1,000}
Totals	392	600	784	1200 ^{Incinerator}

* TRS reported as sulfur

Maximum annual SO₂ emissions are based upon the maximum 24-hour average SO₂ emissions and assuming year-around operation:

$$784 \text{ lb/hr} \times 8,760 \text{ hr/yr} / 2000 \text{ lb/ton} = 3,434 \text{ TPY}$$

II. TOTAL REDUCED SULFUR (TRS)

Although it is expected that the TRS Incinerator will result in conversion of all TRS to SO₂, the TRS regulations allow a 5 ppm (dry basis at standard conditions, corrected to 10% O₂) TRS level in the exhaust gases of an incineration device (12-hour average). Based upon this emission standard, maximum TRS emissions are calculated as follows:

$$\text{Gas Flow Rate} = 10,100 \text{ dscfm @ } 16.0\% \text{ O}_2$$

$$\text{Equate } 5 \text{ ppm standard @ } 10\% \text{ O}_2 \text{ to actual stack O}_2$$

$$C_{\text{corr}} = C_{\text{act}} [(21 - X)/(21 - Y)]$$

0.781
0.209

10.100

76.40

$$50\% EA = \frac{76.40}{20.9}$$

0.3816 CO₂ / hr

$$0.50 EA = \frac{O_2}{0.209}$$

$$O_2 = 0.1045$$

$$\begin{array}{r} 10,100 \\ \times .16 \\ \hline 1,616 \text{ O}_2 \\ \hline 0.209 \end{array}$$

Stoichiometric = 0% EA 0% O₂

So, % EA is

$$10,100 \times \frac{0.209 - 16}{0.209 - 0} = 2,368 \text{ dsctn } \oplus 0\% EA$$

$$10,100 \times \frac{0.209 - 0}{0.209 - (0.3333)(0.209)} = 3552$$

70 0% EA
10,100

$$X = \text{corrected } O_2 = 10\%$$

$$Y = \text{actual } O_2 = 16\%$$

$$C_{\text{corr}} = C_{\text{act}} [(21 - 10)/(21 - 16)] = 2.2 C_{\text{act}}$$

$$C_{\text{act}} = C_{\text{corr}} / 2.2 = 5 / 2.2 = 2.27 \text{ ppm}$$

TRS emissions:

$$\text{PVC} = \text{mRT}$$

$$m = \text{PVC}/\text{RT}$$

$$m = \frac{2116.8 \text{ lb}_f}{\text{ft}^2} \times \frac{10,100 \text{ ft}^3}{\text{min}} \times \frac{2.27}{10^6} \times \frac{34 \text{ lb}_m}{1545 \text{ ft-lb}_f} \times \frac{1}{528 \text{ }^\circ\text{R}} \times \frac{60 \text{ min}}{\text{hr}}$$

$$= 0.12 \text{ lb/hr}$$

$$0.12 \text{ lb/hr} \times 8,760 \text{ hr/yr} / 2,000 \text{ lb/ton} = 0.53 \text{ TPY}$$

III. OTHER POLLUTANTS

A. METHANOL BURNING

Emission factors for methanol burning are not published in USEPA AP-42, "Compilation of Air Pollutant Emission Factors." As a result, emission factors in AP-42 for liquified petroleum gas (propane) were used as an estimate of emissions due to methanol burning. The emission factors are as follows:

Particulates - 0.44 lb/1000 gal

Nitrogen oxides - 12.4 lb/1000 gal

Carbon monoxide - 3.1 lb/1000 gal

Volatile Org. Cmpds. - (0.25 + 0.27) = 0.52 lb/1000 gal

Emission estimates are presented below:

$$\text{Maximum Methanol burning rate} = 8.0 \times 10^6 \text{ Btu/hr} / 9,781 \text{ Btu/lb}$$

$$/ 6.6 \text{ lb/gal} = 124 \text{ gal/hr}$$

$$\text{Particulates} = 124 \text{ gal/hr} \times 0.44 \text{ lb/1000 gal} = 0.055 \text{ lb/hr}$$

$$\text{Nitrogen oxides} = 124 \times 12.4/1000 = 1.54 \text{ lb/hr}$$

$$\text{Carbon monoxide} = 124 \times 3.1/1000 = 0.38 \text{ lb/hr}$$

$$\text{Volatile Org. Cmpds.} = 124 \times 0.52/1000 = 0.064 \text{ lb/hr}$$

B. NATURAL GAS BURNING

From AP-42, emission factors for natural gas burning are as follows:

$$\text{Particulates} - 5 \text{ lb}/10^6 \text{ ft}^3$$

$$\text{Nitrogen oxides} - 100 \text{ lb}/10^6 \text{ ft}^3$$

$$\text{Carbon monoxide} - 20 \text{ lb}/10^6 \text{ ft}^3$$

$$\text{Volatile Org. Cmpds} - (5.3 + 2.7) = 8.0 \text{ lb}/10^6 \text{ ft}^3$$

Emission estimates are presented below:

$$\begin{aligned} \text{Maximum natural gas burning rate} &= 8.0 \times 10^6 \text{ Btu/hr} / 1,050 \text{ Btu/ft}^3 \\ &= 7,619 \text{ ft}^3/\text{hr} \end{aligned}$$

$$\text{Particulates} = 7,619 \text{ ft}^3/\text{hr} \times 5/10^6 = 0.038 \text{ lb/hr}$$

$$\text{Nitrogen oxides} = 7,619 \text{ ft}^3/\text{hr} \times 100/10^6 = 0.76 \text{ lb/hr}$$

$$\text{Carbon monoxide} = 7,619 \text{ ft}^3/\text{hr} \times 20/10^6 = 0.15 \text{ lb/hr}$$

$$\text{Volatile Org. Cmpds} = 7,619 \text{ ft}^3/\text{hr} \times 8/10^6 = 0.061 \text{ lb/hr}$$

C. ANNUAL EMISSIONS

Annual emissions estimates assumes highest emissions for either fuel

$$\text{Particulates} = 0.055 \text{ lb/hr} \times 8,760 \text{ hr/yr} / 2,000 \text{ lb/ton} = 0.24 \text{ TPY}$$

$$\text{Nitrogen oxides} = 1.54 \text{ lb/hr} \times 8,760 / 2,000 = 6.75 \text{ TPY}$$

$$\text{Carbon monoxide} = 0.38 \text{ lb/hr} \times 8,760 / 2,000 = 1.66 \text{ TPY}$$

$$\text{Volatile Org. Cmpds} = 0.064 \text{ lb/hr} \times 8,760 / 2,000 = 0.28 \text{ TPY}$$

ATTACHMENT C
INCINERATOR DESIGN INFORMATION

Design Basis

Combustion chamber temperature = 1500°F

Minimum residence time = 0.5 seconds

Fuel:

Normal - Methanol from steam stripper

Heating value = 313,000 Btu/mol

Molecular weight = 32

Heating value = 313,000 / 32 = 9,781 Btu/lb

Maximum heat input = 8.0×10^6 Btu/hr

Backup fuel - Natural gas is used only if sufficient methanol is
not available

TRS Destruction Efficiency

TRS emissions into incinerator, based upon 24-hour maximum (refer to
Attachment B): 392 lb/hr (as sulfur)

TRS emissions in exhaust gases of incinerator (refer to Attachment B)
= 0.12 lb/hr (as sulfur)

TRS destruction efficiency = $[(392 - 0.12)/392] \times 100 = 99.97\%$

TABLE 1.5-1. EMISSION FACTORS FOR LPG COMBUSTION^a
EMISSION FACTOR RATING: C

Furnace Type and Fuel	Particulates		Sulfur _b Oxides		Nitrogen Oxides ^c		Carbon Monoxide		Volatile Organics			
	kg/10 ³ l	lb/10 ³ gal	kg/10 ³ l	lb/10 ³ gal	kg/10 ³ l	lb/10 ³ gal	kg/10 ³ l	lb/10 ³ gal	Nonmethane		Methane	
	kg/10 ³ l	lb/10 ³ gal	kg/10 ³ l	lb/10 ³ gal	kg/10 ³ l	lb/10 ³ gal	kg/10 ³ l	lb/10 ³ gal	kg/10 ³ l	lb/10 ³ gal	kg/10 ³ l	lb/10 ³ gal
Industrial												
Butane	0.01-0.06	0.10-0.47	0.01S	0.09S	1.58	13.2	0.4	3.3	0.03	0.26	0.03	0.28
Propane	0.01-0.05	0.09-0.44	0.01S	0.09S	1.49	12.4	0.37	3.1	0.03	0.25	0.03	0.27
Domestic/ commercial												
Butane	0.01-0.06	0.10-0.47	0.01S	0.09S	1.13	9.4	0.23	1.9	0.06	0.5	0.03	0.25
Propane	0.01-0.05	0.09-0.44	0.01S	0.09S	1.05	8.8	0.22	1.8	0.06	0.47	0.03	0.24

^a Assumes emissions (except sulfur oxides) are the same, on a heat input basis, as for natural gas combustion.

^b Expressed as SO₂. S equals the sulfur content expressed in g/100 m³ gas vapor. For example, if sulfur content is 0.366 g/100m³ (0.16 gr/100ft³) vapor, the SO₂ emission factor would be 0.01 x 0.366 or 0.0037 kg SO₂/10³ liters (0.09 x 0.16 or 0.014 lb of SO₂/1000 gal) butane burned.

^c Expressed as NO₂.

TABLE 1.4-1. UNCONTROLLED EMISSION FACTORS FOR NATURAL GAS COMBUSTION^a

Furnace size & type (10 ⁶ Btu/hr heat input)	Particulate ^b		Sulfur dioxide ^c		Nitrogen oxides ^d		Carbon monoxide ^e		Volatile organics			
	kg/10 ⁶ m ³	lb/10 ⁶ ft ³	kg/10 ⁶ m ³	lb/10 ⁶ ft ³	kg/10 ⁶ m ³	lb/10 ⁶ ft ³	kg/10 ⁶ m ³	lb/10 ⁶ ft ³	Nonmethane		Methane	
									kg/10 ⁶ m ³	lb/10 ⁶ ft ³	kg/10 ⁶ m ³	lb/10 ⁶ ft ³
Utility boilers (> 100)	16 - 80	1 - 5	9.6	0.6	8800 ^h	550 ^h	640	40	23	1.4	4.8	0.3
Industrial boilers (10 - 100)	16 - 80	1 - 5	9.6	0.6	2240	140	560	35	44	2.8	48	3
Domestic and commercial boilers (< 10)	16 - 80	1 - 5	9.6	0.6	1600	100	320	20	84	5.3	43	2.7

^aExpressed as weight/volume fuel fired.

^bReferences 15-18.

^cReference 4. Based on avg. sulfur content of natural gas, 4600 g/10⁶ Nm³ (2000 gr/10⁶ scf).

^dReferences 4-5, 7-8, 11, 14, 18-19, 21.

^eExpressed as NO_x. Tests indicate about 95 weight % NO_x is NO₂.

^fReferences 4, 7-8, 16, 18, 22-25.

^gReferences 16, 18. May increase 10 - 100 times with improper operation or maintenance.

^hFor tangentially fired units, use 4400 kg/10⁶ m³ (275 lb/10⁶ ft³). At reduced loads, multiply factor by load reduction coefficient in Figure 1.4-1. For potential NO_x reductions by combustion modification, see text. Note that NO_x reduction from these modifications will also occur at reduced load conditions.

08/03/87

Abid Lator
(818) 571-5133 (cont'd)
Tampa Ship

A.Q. District

Transfer efficiencies of more than 65% are allowed as creditable reduction. Back calculation using formula to determine how much VOC can be allowed as a compliance coating. Generally some spray booths have installed afterburners and carbon absorbers.
~~have equivalent provision~~

08/03/87

Monroe Price
(818) 572-6444
Tampa Ship

South Coast
A.Q. District

Many California rules contain an alternate emission control plan. EPA wants as SIP revision. Original 79 exemption part of federally approved SIP. New changes not yet approved. Spraying normally has transfer efficiency of 25%. Via Nova efficiency of 80-96%. sounds very good. Basic efficiency for baseline used by California is 65%. Company out of Harleysville, Penn. Metro (215) 723-6751 has carbon adsorption system to treat dilute vapors then desorbs concentrated vapors to incineration. Might work for high bay buildings which are difficult to control. Capital is high \$4-6 MM. Operation \$5-6 K/ton. Might be able to use scale down version.

Suggested contact Jim Gabriele San Francisco

08/04/87

David Salmon
(919) 541-5417
Tampa Ship

EPA
RTP

Done some research because he is working on aircraft coatings. Surprised to find only single sentence. Says EPA should have

08/04/87

David Salmon
(919) 541-5417 (cont'd)
Tampa Ship

EPA
RTP

handled differently. More research was needed to address problem rather than oddball exemptions. Talked to one of the people putting books together and they did not think it wise to require LST development for marine vessels and aircraft because mfgs in a difficult position if none could be developed. Intent appears to be exemption of coatings for assembled fuselages and vessels. California is working on rule for marine vessels. Cautioned about California rules because they have tendency to use study numbers then retract and say not enforceable. Creates gap between what EPA and states think are enforceable. EPA tends to view creditable increase in transfer efficiency as going only from typical to outstanding. Have it working on transfer efficiency guidance. EPA has a lot of sentiment to require SIP revisions where increased transfer efficiencies involved. One way to reduce solvents used in paint is especially for automated process is paint heaters and mixing turbines. Paint heaters cost about \$200 and reduce emissions by half pound per hour. Has worked for deam manufacturers. Says 80-96% probably "guesstimate".

08/04/87

Ed Middlestark
SC 695-8364
Exxon Production
Test



Explained briefly Bill's conversation with Koogler and background. Ed asked if trying to go around. Said thought so. But explained that Bill had said no to 180-day test just for production. So, asked me to call see if Ed would concur 30-day based on reasons given in paragraph 1 of Exxon 07/31/87 letter. Explained Bill's background with Sun Oil and that activity was to determine that equipment authorized in pending permit could be installed. So not construction without permit. Ed concurred asked that I send letter.

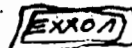
08/04/87

Ashlyn Broussard
(504) 561-4226
Exxon
Exxon Temporary

SKSD mounted testing facility. Want to remove paraffin ~~test~~ before construction of equipment. Put Toluene down hole. Want to reduce pressure prior to installing lift equipment. Cannot install pumps at pressure. Presently have 2400 lbs/in² of surface pressure. In order to install and use pumps along with facility. Sub-surface engineers do not feel can install. No way to install. Would have to wait. Involves downhole work. Not sure if installation can be done at pressures but sure it is not safe to do it. Pressures have built up with wells not pro-

08/04/87

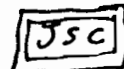
Ashlyn Broussard
(504) 561-4226
Exxon Temporary
Permit



ducing. Usually pressure does not build up when wells are not producing. High GOR 422 is possibly responsible. If unable to produce. This will be a testing facility and is necessary before foundations and preparation can begin.

08/06/87

Noah Davis



No. 10 Power Boiler
Permit

Explained that Max Linn and Barry Andrews both had enough information to consider the application complete. Pointed out that air quality modeling contained violations that would make the project unapprovable. Suggested that alternatives were for us to dig to find incompleteness -- but that would be ~~at~~ reaching and could be challenged; company to send letter asking us to put review on hold while substantive amendments were developed; or for us to deny because of modeled violations. Said he would have to speak with Jerry Cox who was in Brewton Ala, attorney and Engr. -- Dave Buff, said he would get back to me.

08/07/87

Dave Buff
JSC permit No. 10
(904) 375-8000

KBN

Asked if I had threatened his client. Told him no that I had not threatened his client. Explained that the modeled ambient violations to which JSC was a significant contributor made approval impossible. Went on to tell him that Bill Thomas and I had discussed the options and felt that it was better that the company be ~~given~~ offered the opportunity to try to clear up modeled violations than for us to go forward with an intent to deny. Attempted to make it clear that we wanted to work with the company -- not fight with or coerce JSC. He said we would get letter.

08/07/87

Norm Davis
No. 10 Power Boiler

JSC

He called to say company appreciated opportunity to correct problems. Explained that we would receive a letter via express mail, asking that the application review be placed on hold while company did substantive amendments. He wanted to know if the vehicle should be a letter or a waiver. ~~Said~~ Told him a letter. Suggested appropriate words that might be used. Asked about approval potential. ~~We~~ wanted to know if JSC goes down below significance levels if we could approve with violations. Told him I thought possible but not sure. Explained to him that best interest of Tex if violations could be eliminated

08/07/87

Norm Davis
(904) 353-3611
No. 10 Power Boiler Cont'd

JSC

Explained that EPA might force us to declare SO₂ nonattainment if violations not cleared up. He wanted to know if other contributors permits would be changed. Said that was one option but better if companies in Tex worked out problem among themselves. ^{He} wanted to know if JSC might consider taller stacks (providing) for US Gypsum or other sources. Told him might be possibility but company more familiar with options than us.

08/07/87

Brian Mitchell
(303) 236-8761
No. 10 Power Boiler

Park Service

I ~~he~~ called to tell him that project would be placed on hold by JSC until modeled violations could be removed. He wanted to know if they should see if additional info should be provided prior to proceeding with review. Told him probably.

08/07/87

Ashlyn Broussard
(504) 561-4226
McLellan Field

Exxon

I explained that construction permit was for all four wells and expiration date should reflect that. She said company would have to look at and figure out time needed. Company has possible problems with measuring flow after treater and in pounds per hour. Also wants to ~~to~~ know if meeting possible about 08/19. ^{She} said yes. Explained Bill ^{is} gone probably. W. Hanks and I ^{is} wants ^{to} arrive to consider their ^{company} said possible - will send for.

Norman Davis
(904) 227-3611
No. 10 Power Boiler

Jefferson
Smurfist

He wanted to know if we had received the letter requesting a hold on the review of the application. Told him based on initial look because Maggie had just handed ~~me~~ it to me and Bruce that looked OK. But that we would have to run it by OGC. Told him we had received comments from EPA that would have to be addressed. Told him we would send. He seemed agreeable. Asked about clearing up violations (How?) Told him the involved companies would need to work out because they were more familiar with situation in Jacksonville.

08/10/87 Lewis Taylor
(904) 227-1171
Line Kilns

St. Joe

Told Lewis that he should not withdraw application. Told him amended pages would be acceptable. Explained to Lewis that Bill Thomas told me I had erred on 180 day startup for recovery because applied to federally permitted sources under NSPS and PSD. Explained most could probably be allowed for shakedown was 30 days. He said his management had serious problems with not being allowed to operate all three. Pointed out that S had been started up without PSD AQ which was tech. violation of PSD permit. Explained to Lewis that we needed to be sure production remained steady until Co. got changes made. Then Co. could apply for mill wide PSD to do increase.

08/10/87

Lewis Taylor
227-1171
Line Kilns

Cont'd

St. Joe

~~He~~ He said they would furnish more concrete later on. Maybe the don't understand? Told him I had copy of EPA Feb. 13 letter on reconstruction and would send him a copy. He was agreeable.

08/10/87

Terry Cole
877-0079

Reconstruction

Attny
St. Joe

He said reconstruction costs ~~last~~ on basis of our ~~discussion~~ meeting appear to be about 25%. Explained that I had talked to Lewis Taylor and offered to send him a copy of the EPA Feb. 13, 1987 letter on reconstruction. Asked Terry if he would like one -- He said he would send someone over to pick it up. Wanted St. Joe to go over rest of the mill's plans. I said sounded good but would have to check with Willard and Bruce. He said it would be like a pre ap conf.

NEED TO DO - MBH

08/10/87

Deborah Mangis
New Na will be -
(303) 969-2072
Jefferson Smurfist

Nat'l
Park
Service

She said Nat'l Park Service (NPS) had several comments about the Jefferson Smurfist No. 10 Power Boiler application. The written comments have been sent forward to the Region. A copy should be sent to ~~us~~ sometime next week.

08/10/87

Deborah Mangis
New No. will be Cont'd.
(303) 969-7072
Jefferson Smurfitt No. 10
Power Boiler Application

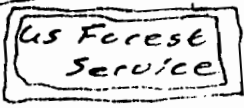


she asked that I call her if we had not received the comments by the end of next week. Basically the NPS concerns are:

1. The vegetative impacts on the Okefenokee were not adequately addressed. As a matter of fact there would be adverse impacts on some of the vegetation at the projected levels. The impacts on vegetation such as lichens was ignored. Need to adequately address vegetation impacts
2. The present emissions case was not analyzed so the NPS was unable to tell how much impact the change would cause.
3. The NPS is concerned about the precedent that would be set by allowing a relaxation of the controls being applied. Specifically, there is a case in Kentucky where an aluminum producer is proposing to ~~reduce~~ remove controls and emit about 1 ton per day of fluoride. to the situation

08/10/87

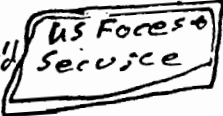
Bill Carothers
(404) 347-7478
Jefferson Smurfitt
No. 10 Power Boiler



Explained the action that we were taking with regard to Jefferson Smurfitt Power

08/10/87

Bill Carothers
(404) 347-7478 Cont'd.
Jefferson Smurfitt
No. 10 Power Boiler



Boiler PSD application. Asked if they had any comments. He said various foresters still had not furnished comments. The Service has had an active program in the west with regard to air quality management. They are just now trying to get program started in the East. He is mostly concerned about Class I ~~areas~~ area Bradwell Bay. They are also concerned about impacts on Forest in Class II areas such as Osceola. Presently trying to get program organized and Foresters involved. Explained Florida Law 30-day and 90-day clock. He said they would try to comply in future. Told him if they had comments we might go ahead and provide to TSC since clock is stopped. He asked about future would we accept verbal comments if unable to respond in 30 days. Told him probably but should be followed with drafts or final comments on heels of verbal. Explained that I was new to permitting and some of my answers may not be completely correct. He committed to try to get comments in within 30 day period in the future.

08/10/87
08/11/87

Ashlyn Broussard
(504) 561-4226
Exxon Permit

EXXON

We had several discussions about Exxon wanting waiver of comment period and 30 day clock in order to get comments to

08/10/87
08/11/87

Ashlyn Broussard
(504) 561-4226
Exxon Permits

us about their draft permit and 90-day period. After discussions with Bill Thomas (before he left on vacation), Willard Hanks, Betsy Pittman told her they needed to get us a letter by 08/13/87 asking for extension to 08/20/87 and for extension of 90-day clock. Told her that care had to be exercised because of Temp Production Test permit 30 day request for wells ~~1~~ land 2. They understand problem. Dictated from similar Cunningham letter to give them idea about what to say and to call Betsy Pittman. Ex Set up tentative meeting for 08/18/87. Discussed changes they want:

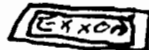
1. Told them General Conditions set by rule so we cannot change
2. They pointed out typo in Intent To Issue "Stack Flare" instead of Flare Stack. Told them inconsequential because not part of final.
3. Would like to change ~~TE&PD~~ TE&PD to state welding of most connections rather than all. Their error ~~is~~ she said. Pointed out fugitive factor already accounts for flanges. Said sounded probable
4. Some concern about 18,824 lb/hr limit. ~~For~~ She said L. Bruce little concerned but thought he would accept since it was most the planned. Told her we had to have max hourly upper limit. Average not really acceptable. - No Change without consent.
5. They would prefer to measure flow

08/24/87

covers previous
Discussions

Ashlyn
Broussard
Mike Hines

Exxon Permits



1. ~~The~~ The maximum rate is 340 BPD based on pump. The reservoir limit is 360 BPD. ~~Torque~~ Torque about 12 strokes/minute. Reservoir pressure limits to 360 BPD.
2. Propane may be used for startup in the event that the entire installation and sufficient gas is not available to restart the facility. Having the use of propane shall be minimized and shall not exceed a duration of two hours during each startup.
Spec. Cond. 3 7.2.50
3. Check with Bill. 1600 BPD acceptable so long as hourly can be checked during ~~product~~ inspection and testing.
4. Welding "all" connections to "most" connections.
5. Jay Lake Administrative Office both physical & mailing address
6. Change to BPD & from lb/hr
7. Change in location of meter. 162
8. 90-100% of permitted capacity - whichever.
9. Expiration

08/31/87

Jerry Cox
No. 10 Power Boiler
(904) 353-364

NSC

Called at Clair's request. Told him that we were concerned about the modeled violations and had meeting to discuss situation on 08/29/87. No firm conclusion about how to address problem has been decided upon yet. Told him that our concern had to address AP violations (modeled) and that his company and, possibly others could be boxed in if some action is not taken to clear up problem. Wanted to know if we would keep him informed told him "Yes". He wanted to know if we would approve if violations eliminated. Told him I could not commit but we would look at.

08/31/87

Ashlyn Broussard
McLellan Field
(504) 561-4226

EXXON

Went over proposed changes to permit. Agreed on all but 2 issues reservoir and number of wells. Spoke to construction of well 3. Advised as representative of Dept. the Company could clear area but should not start drilling until permit issued. Explained 3 phases we perceive. She said company was going to send letter. Advised us that the waiver has been signed.

09/01/87

David Buff
Jefferson Smurfit

KBM

He wanted to know if there was a chance that Jefferson Smurfit could be approved if modeled violations were cleaned up. Told him we would have to look at results and see. His concern was the BACT. And if any one had preconceived personal notions. Told him as review engineer I did not (AND I DON'T) have any feelings about it. Did not have reading yet from Barry and Max but both were detached and objective. Told him about EPA comments and NPS comments. Shared observations about BACT-cost and cleaning house. Shared what I told Jerry Cox. Informed him I told Jerry Cox about comments. I DID

09/02/87

Russ Ayers

(503) 746-1511

Weyerhaeuser

ST. JOE No. 6

Boiler since 1970-1971 and not NSPS CE two levels air. 65% liquor in the bottom. Limit is 5ppm. 1-2 ppm exceedance. 24-hour limit. Doing about the best. Lot of work done - still difficult. Would have more exceedances if 12 hr. 6ppm. Optimize flue gas flow to eliminate sneaking under plates. 150 baffle extended closer to liquor surface after distribution plate. Changed cap in let in plate to continuously raised liquor level to contact with plates. Liquor temp. 200°F. TR ESP suspect soap in ESP may cause TRS problem. Remove all soap.

09/02/87

Russ Ayers
(504) 561-4226
ST. JOE

CONT'D

Weyerhaeuser

800 TPD units Stationary Firing: one aspect is shutting down oscillators. Downward angle.

09/1/87

Ashlyn Broussard
McLellan Field
(504) 561-4226

Exxon

Waiver is going out today air express. Should get by noon tomorrow. New supervisor is David Mincer. Letter being typed but it will probably not go out until next week. Told her I would call her and let her know when the permit is signed.

09/03/87

Bill Vogel
(803) 329-6601
St. Joe

Bowater

Build brand new recovery with wet bottom could not pass. Baffling and changes ~~to~~ in chemistry can affect the ability. B&W unit. If building brand new would go dry. ~~2-3~~ 3-4 12 hr most of time

Existing B&W rebuilt. New precip. 8 years of life 4-9 ppm. It is 1964 model. Can meet 17.5 ppm no problem. If hard wood used can be a problem. Never had any excursion.

New one has excursions 1/2-1 ppm. May have 1-2 per quarter.

Tried to use stationary firing - but operating people don't like it.

New designs should not exceed 90% of design. Rated at 600 TPD.

Management thinks stationary.

It would be difficult to maintain 5 ppm with wet bottom.