

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

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 SO<sub>2</sub> 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 SO<sub>2</sub> 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.

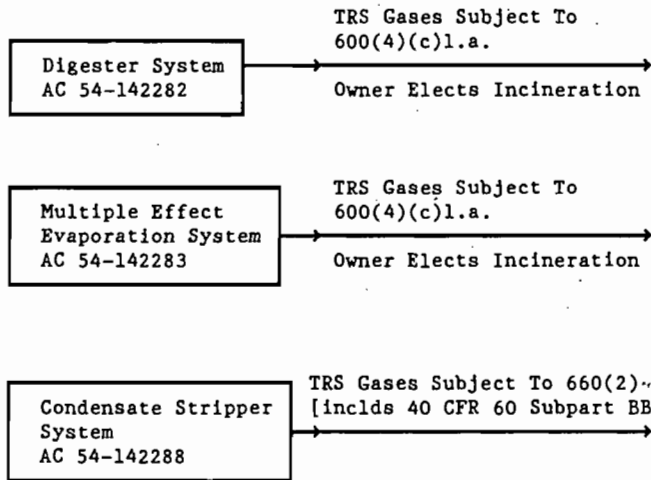
The applicant is also required to install source sampling facilities on the proposed TRS incinerator and perform source testing for TRS, particulate, and SO<sub>2</sub> in accordance with the provisions of 17-2.700[Stationary Point Source Emissions Test Procedures], and 40 CFR 60[Federal NSPS]. The continuous 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.

GEORGIA-PACIFIC TRS CONTROL

SYSTEM

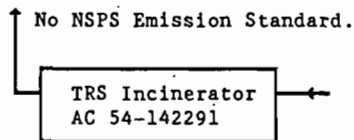
DIGESTERS, MULTIPLE EFFECT EVAPORATORS, & CONDENSATE STRIPPER



Pursuant to 660(2)(a) And 40 CFR 60.283(a)(1)(iii), Owner Elects To Combust Gases From NSPS Stripper With Other Waste Gases In Incinerator Or Other Device, Or In Lime Kiln Or Recovery Furnace Not Subject To NSPS And Subjection To 1200°F For 0.5 Second. NOTE: This Option Available Only Because Gases From NSPS Sources Are To Be Combined With Those From Non-NSPS Sources. Reason For This Exception--Section 111 Of The CAA Only Authorizes EPA To Promulgate Emission Standards For New Sources.

Pursuant to 40 CFR 60.283(a)(1), If The Owner Elects To Combust Gases From The NSPS Stripper Alone Or With Those From Other NSPS Sources In A Source Other Than A NSPS Lime Kiln Or NSPS Recovery Furnace Then The Gases Cannot Contain More Than 5ppm TRS.

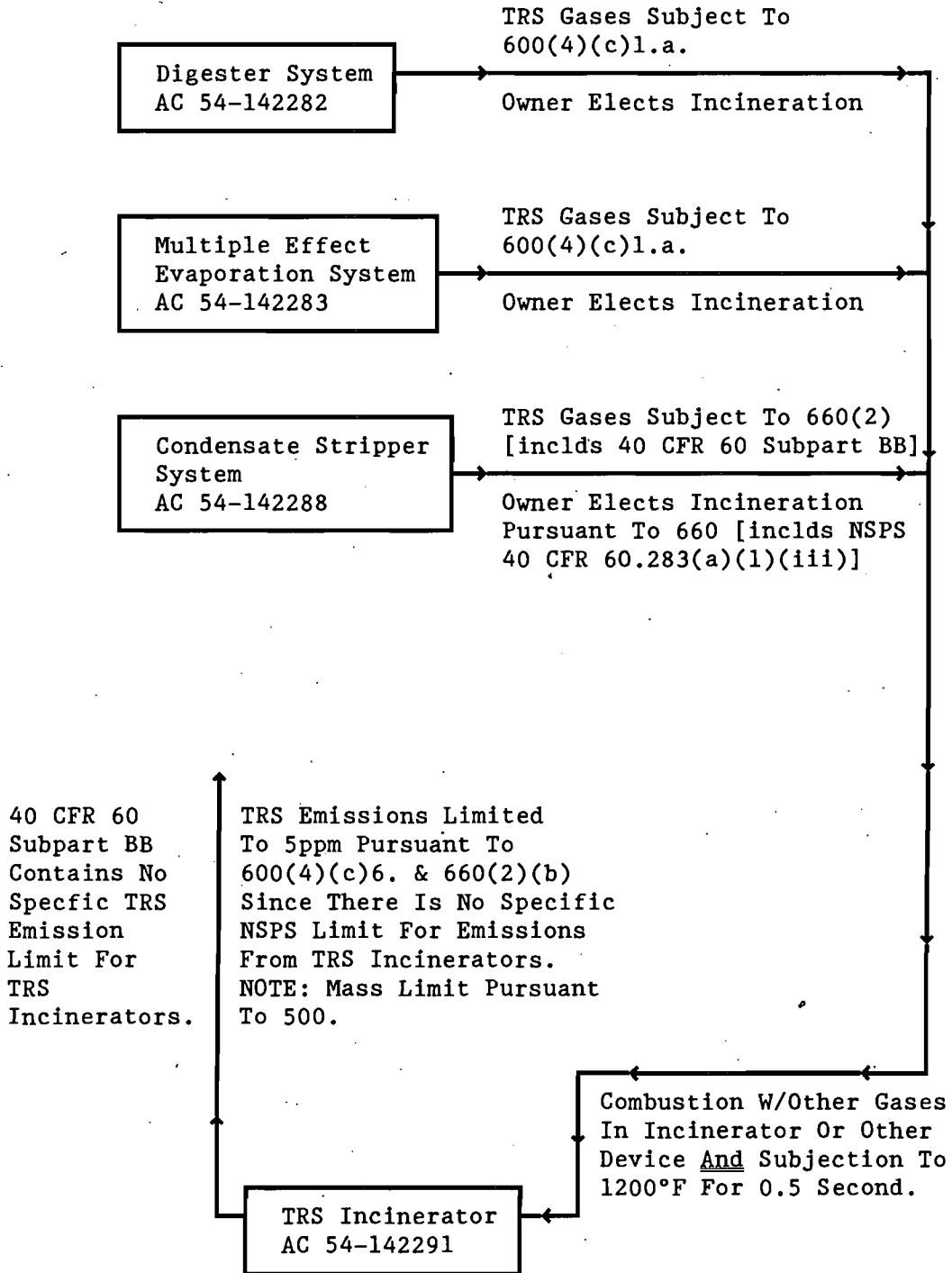
TRS INCINERATOR



40 CFR 60 Subpart BB Does Not Contain A Specific TRS Emission Limitation For TRS Incinerators. Pursuant 660(2)(b) The Department Is Authorized To Impose Any Applicable Emission Limiting Standard In Part VI That Regulates Sources Or Pollutant Emissions That Are Not Regulated By The Federal NSPS. So, The Applicable TRS Emission Limitation For The TRS Incinerator Is 5 ppm Pursuant To 600(4)(c)6.

GEORGIA-PACIFIC TRS CONTROL

SYSTEM



FLORIDA TRS 111 (d) RULE

17-2.600 Specific Emission Limiting and Performance Standards

(4) Kraft (Sulfate) Pulp Mills And Tall Oil Plants

(c) Total Reduced Sulfur (TRS).

1. Digester Systems, Multiple Effect Evaporator Systems, Condensate Stripper Systems.

a. Gaseous emissions shall be collected and incinerated in a lime kiln or calciner meeting the requirements of either Rule 17-2.600(4)(c)5., FAC, or Rule 17-2.660, FAC, or a kraft recovery furnace meeting the requirements of either Rule 17-2.600(4)(c)3., FAC, or Rule 17-2.660, FAC, or a combustion device meeting the requirements of either Rule 17-2.600(4)(c)6., FAC, or Rule 17-2.660, FAC, or;

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6. Other Combustion Devices Used To Incinerate Total Reduced Sulfur Emissions.

a. 5 ppm by volume on a dry basis at standard conditions corrected to 10 percent oxygen as a 12-hour average.

b. Sources subject to this provision may include but shall not be limited to power boilers, carbonaceous fuel burning equipment and incinerators.



F E D E R A L N S P S F O R K R A F T M I L L S

Subpart BB—Standards of Performance For Kraft Pulp Mills

§ 60.280 Applicability and designation of affected facility.

(a) The provisions of this subpart are applicable to the following affected facilities in kraft pulp mills: Digester system, brown stock washer system, multiple effect evaporator system, recovery furnace, smelt dissolving tank, lime kiln and condensate stripper system.

§ 60.283 Standard for total reduced sulfur (TRS).

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed 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 condensate stripper system any gases which contain TRS in excess of 5 ppm by volume on a dry basis, corrected to 10 percent oxygen, unless the following conditions are met:

(i) The gases are combusted in a lime kiln subject to . .

(ii) The gases are combusted in a recovery furnace subject to . . . .

(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,

F L O R I D A N E W S O U R C E S T A N D A R D S

17-2.660 Standards of Performance for New Stationary Sources (NSPS).

(2) Applicability

(b) 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), F.A.C., above, and shall be controlling over other standards in this rule except that any emissions limiting standard contained in Part VI which is more stringent than one contained in a Standard of Performance, or which regulates emissions of pollutants or sources of emissions not regulated by an applicable Standard of Performance shall apply.

TRS 111(d) PLAN  
SUBMITTED TO EPA  
MAY 24, 1985

Standards The Same As 111(d)

P. IV-3 & IV-4, ¶ 4--"Most of the total reduced sulfur (TRS) emission limiting standards contained in the amendment to Rule 17-2.600(4)(c) are equivalent to those recommended in the federal 111(d) guidelines. The amendment to Rule 17-2.600(4)(c) requires owners or operators of kraft pulp mill to either incinerate all of the total reduced sulfur (TRS) emissions from digester systems, multiple effect evaporator systems, and condensate stripper systems in lime kilns, recovery furnaces, or other combustion devices which comply with the emission limiting standards pursuant to Rule 17-2.600(4)(c) or the federal new source performance standards in Rule 17-2.660."

P. IV-4, ¶ 1--"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."

STANDARDS SUPPORT  
AND  
ENVIRONMENTAL IMPACT STATEMENT  
VOLUME I:  
PROPOSED STANDARDS  
OF  
PERFORMANCE  
FOR  
KRAFT PULP MILLS

9.5 SELECTION OF THE EMISSION LIMITS

9.5.4 Digester System, Brown Stock Washer, Black Liquor Oxidation System, Multiple-Effect Evaporator System, and Condensate Stripper Column

P. 9-44, ¶ 1--"The best control technology, considering costs, for these five sources of TRS is incineration. This incineration can be accomplished in the recovery furnace, the lime kiln, and a separate incineration unit. Maintenance of proper combustion parameters, basically temperature and residence time, will assure complete oxidation of the gases."

P. 9-44, ¶ 2--"Test data on one incineration unit, burning non-condensable TRS gases from the digester system and multiple-effect evaporator system, show that levels ranging from 0.5 to 3 ppm (4-hour average) are achievable. The incinerator was operating at 1000°F with a retention time for the gases of at least 0.5 seconds. Similar results can be expected when the TRS gases are incinerated in either the recovery furnace or lime kiln."

P. 9-44, ¶ 3--"The proposed standards for these five affected facilities are set at 5 ppm (4-hour average). A concentration standard was chosen as the format of the proposed standards for the reasons presented in section 9.4."

TECHNICAL EVALUATION  
AND  
PRELIMINARY DETERMINATION  
MARCH 17, 1988

I. Project Description

C. Project Description and Controls

P.4, ¶ 2--"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% O<sub>2</sub> as a 12-hour average."

II. Rule Applicability

P. 5, ¶ 3--"The proposed condensate stripper system is a source pursuant to FAC Rule 17-2.100(49)[Definitions-Concensate 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]."

P. 5, ¶ 4--"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 subject 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."

## DISCUSSION

- PAGE 1--The diagram provides a simplified view of the sources and the concept of the applicable standards using four permits that were issued to Georgia-Pacific as an example.
- PAGE 2--Non-NSPS Digester and Multiple Effect Evaporator Systems--Rule 17-2.600(4)(c)1.a. requires that the gaseous emissions 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. It is extremely important to note that Rule 17-2.600(4)(c)1.a. references Rule 17-2.660 and not simply to the federal NSPS in 40 CFR 60 Subpart BB. This enables the Department to impose the provisions of Rule 17-2.660(2)(b) in the absence of a specific emission limiting standard.
- PAGE 3--NSPS Condensate Stripper System--Pursuant to Rule 17-2.660(2)(a) [SEE PAGE 4], the condensate stripper system is subject to 40 CFR 60 Subpart BB. [NOTE: Condensate stripper systems are among the affected facilities listed in §60.280(a).] §60.283(a)(1)(iii) prohibits the release of gases from a condensate stripper that contain more than 5 ppm unless combusted with other waste gases in an incinerator and subjected to 1200°F for 0.5 second. TRS incinerators are not among the affected facilities listed in §60.280(a). And, §60.283 does not include a specific emission limiting standard for TRS incinerators.
- PAGE 4--TRS Incinerator--It is important to note that Rule 17-2.600(4)(c)6. was created and Rule 17-2.660(2)(b) was amended in order to require those who elected to utilize dedicated TRS incinerators to comply with specific TRS emission limiting standards in terms of concentration and mass. Pursuant to Rule 17-2.660(2)(b), NSPS applies to all affected facilities and is controlling except where an emissions standard in Part VI is more stringent or regulates emissions of pollutants or sources not regulated by an NSPS. This provides three bases for the application of Rule 17-2.600(4)(c)6. to the TRS incinerator.

DISCUSSION  
Continued

First, TRS incinerators are subject to the requirements of Rule 17-2.600(4)(c)6. because they are not among the affected facilities listed as regulated in §60.280(a).

Second, TRS incinerators are subject to the requirements of Rule 17-2.600(4)(c)6. because they are not subject to an applicable standard in §60.283. The time and temperature requirements in §60.283(a)(1)(iii) are applicable to the gases from the condensate stripper system and not to the TRS incinerator or other combustion devices. §60.283(a)(1)(iii) consists of two separate and independent requirements: (1) the emissions from the condensate stripper system are combusted in an incinerator (or other combustion device); and (2) the emissions from the condensate stripper system are subjected to 1200°F for 0.5 second.

#### SUMMARY

If the entire question were to hang on the "disjunctive or" in Rule 17-2.600(4)(c)1.a., then one equally valid counterpoint or offsetting requirement is simply that § 60.283(a)(1)(iii) actually consists of two separate requirements: First, the gases from the condensate stripper are to be combusted in an incinerator. Second, the gases from the condensate stripper system are to be subjected to 1200°F for 0.5 second, but not necessarily by the incinerator. Since TRS incinerators are not subject to a specific emission limiting standard pursuant to 40 CFR 60.283 the provisions of Rule 17-2.600(4)(c)6. apply pursuant to 17-2.660(2)(b).



Liquor feed solids and undissolved solids contents

Water makeup rate

Fan(s) current at rated voltage

Pump(s) current at rated voltage

Gas flowrate

Gas temperatures, inlet and outlet (minimum)

b. Baghouses

Bag pressure drop

Gas flowrate: direct method preferred; indirect method acceptable

Air to cloth ratio

Bag Weave

Bag material

Gas temperature, inlet and outlet

Bag cleaning conditions:

Pulse: Air pressure

Shake: shaker motor current

Reverse: reverse air fan current

Bag cleaning cycle:

Shake: duration, frequency, and delay periods

Reverse: duration, frequency, and delay periods

c. Electrostatic Precipitators — The following information shall be recorded unless otherwise agreed to by the Department:

Primary voltage

Primary current

Secondary current

Spark rate

Additional information, including but not limited to the following, may be required to be included as descriptive information in the operation and maintenance plan, but shall not be required to be recorded routinely unless the Department determines that a precipitator's ability to achieve compliance with applicable emission limiting standards is questionable:

Secondary voltage

Rapper frequency, plate

Rapper Vibrator frequency, wire

Rapper duration, plate

Rapper Vibrator duration, wire

Gas temperature, inlet and outlet

Estimated gas flowrate

Static pressure

2. Control Equipment Data — The Operation and Maintenance plan shall include identification of control device(s) for each source subject to provisions of this section including but not limited to the following appropriate design specifications and other descriptive data:

a. Manufacturer

b. Model name and number

c. Type: scrubber, baghouse, electrostatic precipitator, dry scrubber, etc.

d. Design flow rate (liquid and/or gas)

e. For EPS's: primary and secondary voltage and current

f. Efficiency rating at design capacity

g. Pressure drop

h. Liquid to gas ratio

i. Scrubbing liquor composition

3. Processing or Materials Handling Systems:

a. Appropriate parameters of processing or materials handling systems provide a measure of the rate of operations. The operation and maintenance plan shall include performance parameters which indicate the rate of operation, process weight through-put, the fuel or other energy source, the materials being processed or other physical or chemical characteristics, as applicable. Such parameters may include, but shall not be limited to the following:

(i) Weight per unit time of raw materials input;

(ii) Process temperature or pressure;

(iii) Fuel or fuel mixture;

(iv) Chemical or physical data on product or raw materials;

(v) Air to fuel ratio or percent excess oxygen;

(vi) Electrical power use rate by auxiliary equipment.

b. The plan shall contain inspection and maintenance schedules including periodic assessments of the condition of manholes, ducting, breaching, hoods, conveyor and elevator housing, loading sheds and other equipment, and a schedule for recording of performance parameter data.

4. Fossil Fuel Steam Generators.

The operation and maintenance plan for fossil fuel steam generators may include, but shall not be limited to, the following:

Steam flow

Fuel type (e.g., gas, oil, coal, or mixtures thereof).

Consumption rate for type(s) of fuel(s) burned

Fuel oil temperature (if applicable)

5. Records of inspection, maintenance and performance parameter data shall be retained for a minimum of two years and shall be made available to the Department upon request.

(3) Sulfur Dioxide (Reserved.)

(4) Carbon Monoxide (Reserved.)

*Specific Authority 403.061 FS. Law Implemented 403.021, 403.031, 403.061, 403.087 FS. History—Formerly 17-2.13(3)–(7), 17-2.14(3), 17-2.15, 17-2.16(2), (3), (5), and (6), Amended and Renumbered 11-1-81, Amended 1-12-82, 11-25-82, 1-19-83, 7-21-83, 10-20-86, 5-30-88, 7-9-89, 8-30-89.*

#### 17-2.660 Standards of Performance for New Stationary Sources (NSPS).

(1) Definitions and Abbreviations. For the purposes of Section 17-2.660, the definitions contained in 40 CFR 60.2 and Section 111 of the Clean Air Act Amendments of 1977, and the abbreviations contained in 40 CFR 60.3 are adopted by reference, except that the term "Administrator" when used in 40 CFR Part 60 shall mean the Secretary or his authorized representative.

(2) Applicability

(a) The Standards of Performance for New Stationary Sources contained in 40 CFR Part 60 and listed in Table 660-1 are adopted by reference. Each revision to the standards is effective on the date such revision is filed with the Department of State, or on the effective date of the U. S. Environmental Protection Agency regulation, whichever is later.

(b) This section shall apply to all affected sources or 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), F.A.C., above, and shall be controlling over other standards in this rule except that any emissions limiting standard contained in Part VI which is more stringent than one contained in a Standard of Performance, or which regulates emissions of pollutants or sources of emissions not regulated by an applicable Standard of Performance, shall apply.

(3) General Provisions

(a) The provisions of 40 CFR 60.7, Notification and Record Keeping, are adopted by reference.

(b) The provisions of 40 CFR 60.8, Performance Tests, are adopted by reference except that Section 60.8(b) is modified to read as follows: Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart.

(c) The provisions of 40 CFR 60.11, Compliance with Standards and Maintenance Requirements, are adopted by reference.

(d) The provisions of 40 CFR 60.12, Circumvention, are adopted by reference.

(e) The provisions of 40 CFR 60.13, Monitoring Requirements, are adopted by reference.

(f) The provisions of 40 CFR 60.14, Modification, are adopted by reference.

(g) The provisions of 40 CFR 60.15, Reconstruction, are adopted by reference.

(4) Appendices

(a) The provisions of 40 CFR 60 Appendix A, Reference Methods, are adopted by reference.

(b) The provisions of 40 CFR 60 Appendix B,

Performance Specifications, are adopted by reference.

(c) The provisions of 40 CFR 60 Appendix C, Determination of Emission Rate Change, are adopted by reference.

(d) The provisions of 40 CFR 60 Appendix D, Required Emission Inventory Information, are adopted by reference.

*Specific Authority 403.061 FS. Law Implemented 403.021, 403.031, 403.061, 403.087 FS. History—Formerly 17-2.21, New 9-17-80, Amended and Renumbered 11-1-81, Amended 11-25-82, 3-31-83, 7-20-84, 4-10-85, 7-9-85, 4-17-86, 10-20-86, 12-5-88, 7-9-89.*

**17-2.670 National Emission Standards for Hazardous Air Pollutants.**

(1) Definitions and Abbreviations

For purposes of Section 17-2.670, the definitions contained in 40 CFR 61.01 and Section 112 of the Clean Air Act Amendments of 1977, and abbreviations contained in 40 CFR 61.03 are adopted by reference, except that the term "Administrator" when used in 40 CFR Part 61 shall mean the Secretary or his authorized representative.

(2) Applicability

(a) The requirements of this Section are applicable to all of the sources of hazardous air pollutants which contain an affected facility.

(b) The National Emission Standards for Hazardous Air Pollutants contained in 40 CFR Part 61 and listed in Table 670-1 are adopted by reference. Each revision to the standards is effective on the date such revision is filed with the Department of State, or on the effective date of the U. S. Environmental Protection Agency regulation, whichever is later.

shall be allowed for one six-minute period during any hour, or

b. If the source is equipped with a certified continuous emission monitoring device for measuring opacity, then the monitoring results shall be reported to the Department quarterly in the form of an excess emissions report, and visible emissions in excess of 45 percent opacity shall be allowed for up to six percent of the total number of possible contiguous periods of excess emissions in a quarter (excluding periods of startup, shutdown, or malfunction and periods when the source is not operating). The continuous emission monitoring device shall be certified, calibrated, and operated according to the procedures for opacity monitors contained in 40 CFR 60.

2. (Reserved).

3. (Reserved).

(b) Particulate Matter.

1. Kraft Recovery Furnaces — three pounds per each 3000 pounds of black liquor solids fed.

2. Visible emission limits for kraft pulp mill sources equipped with wet scrubbers shall be effective only if the visible emission measurement can be made without being substantially affected by plume mixing or moisture condensation. If the Department determines that visible emissions exceed 20 percent opacity, a special compliance test may be required in accordance with Rule 17-2.700(2)(b), F.A.C.

(c) Total Reduced Sulfur (TRS).

1. Digester Systems, Multiple Effect Evaporator Systems, Condensate Stripper Systems.

a. Gaseous emissions shall be collected and incinerated in a lime kiln or calciner meeting the requirements of either Rule 17-2.600(4)(c)5., F.A.C., or Rule 17-2.660, F.A.C., or a kraft recovery furnace meeting the requirements of Rule 17-2.600(4)(c)3., F.A.C., or Rule 17-2.660, F.A.C., or a combustion device meeting the requirements of either Rule 17-2.600(4)(c)6., F.A.C., or Rule 17-2.660, F.A.C., or;

b. 5 ppm by volume on a dry basis at standard conditions corrected to the actual oxygen content of the untreated flue gas stream as a 12-hour average if a means other than incineration in a combustion device pursuant to Rule 17-2.600(4)(c)1.a., F.A.C., is used to control gaseous emissions of total reduced sulfur.

c. Total reduced sulfur emissions shall not be vented to the atmosphere at any point connected to or between the source and the control device except in the event of an emergency that presents a danger to life or property, or during those times when the control device is shut down for essential maintenance. The owner or operator of the affected facility shall develop a contingency plan, acceptable to the Department, for such circumstances. The plan shall include definitions of what constitutes essential maintenance and a reportable venting incident. The plan shall also include an evaluation of feasible means of controlling or mitigating the impact of total reduced sulfur when a control device or piece of process equipment that is used to control total reduced sulfur emissions is inoperative, and an

assessment of the use of back-up control devices. Once approved by the Department, the plan shall become a modification to the operation permits for affected sources and its provisions shall be followed whenever a shutdown occurs. The time allowed for venting shall be as short as possible and limited to the time required to effect the required maintenance. In no event shall the cumulative time exceed ten days in any annual period unless authorized by the Secretary or the Secretary's designee. These provisions supplement the provisions of Rule 17-2.250, F.A.C. which shall also apply where not in direct conflict with this provision.

Normal excess or erratic pressures shall be controlled in such a manner as to prevent the release of uncontrolled gaseous emissions.

In the event that venting of uncontrolled total reduced sulfur emissions does occur the owner or operator shall notify the Department verbally by the close of the Department's next working day. The owner shall provide the Department with a written report as required by Rule 17-2.250, F.A.C. If the next quarterly report is due to the Department sooner than 30 days after the first day of a reportable venting incident, the report on that incident may be filed with the quarterly reports for the following quarter.

d. Sources subject to this section shall also comply with Rule 17-2.960(1), F.A.C. (Compliance Schedules). Digester systems and multiple effect evaporator systems shall also comply with Rule 17-2.710, F.A.C. (Continuous Emission Monitoring), if a technology other than incineration is used.

2. Tall Oil Plants. Gaseous emissions shall be collected and incinerated in a lime kiln or calciner meeting the requirements of Rule 17-2.600(4)(c)3., F.A.C., or Rule 17-2.660, F.A.C., or a kraft recovery furnace meeting the requirements of Rule 17-2.600(4)(c)3., F.A.C., or Rule 17-2.660, F.A.C., or a combustion device meeting the requirements of Rule 17-2.600(4)(c)6., F.A.C., or Rule 17-2.660, F.A.C., or;

a. 0.05 pound per ton of crude tall oil produced as a 12-hour average.

b. Sources subject to this section shall also comply with Rule 17-2.710, F.A.C. (Continuous Emission Monitoring) and Rule 17-2.960(1), F.A.C. (Compliance Schedules).

3. Kraft Recovery Furnaces.

a. Straight kraft recovery furnaces.

(i) Old design kraft recovery furnaces, new design kraft recovery furnaces that are not direct-fired, and new design direct-fired suspension-burning kraft recovery furnaces — 17.5 ppm by volume on a dry basis at standard conditions corrected to 8 percent oxygen as a 12-hour average.

(ii) New design direct-fired kraft recovery furnaces that are not direct-fired suspension-burning kraft recovery furnaces — 5 ppm by volume on a dry basis at standard conditions corrected to 8 percent oxygen as a 12-hour average.

(iii) Any straight kraft recovery furnace shall

comply with the total reduced sulfur emissions limit for cross recovery furnaces whenever the green liquor sulfidity exceeds 28 percent and the black liquor being burned contains an average of more than 7 weight percent solids originating from the neutral sulfite semichemical (NSSC) process, based on the average of all previous 12-hour averages during the quarter.

b. Cross recovery furnaces — 25 ppm by volume on a dry basis at standard conditions corrected to 8 percent oxygen as a 12-hour average. Any cross recovery furnace shall comply with the total reduced sulfur emissions limit for straight kraft recovery furnaces whenever the green liquor sulfidity is less than or equal to 28 percent or the black liquor being burned contains an average of 7 weight percent or less solids originating from the neutral sulfite semichemical (NSSC) process, based on the average of all previous 12-hour averages during the quarter.

c. Sources subject to this section shall also comply with Rule 17-2.710, FAC (Continuous Emission Monitoring) and Rule 17-2.960(1), FAC (Compliance Schedules).

#### 4. Smelt Dissolving Tank Vents

a. 0.0480 pound per each 3000 pounds black liquor solids as hydrogen sulfide ( $H_2S$ ).

b. Sources subject to this section shall also comply with Rule 17-2.710, FAC (Continuous Emission Monitoring) and Rule 17-2.960(1), FAC (Compliance Schedules).

#### 5. Lime Kilns and Calciners

a. 20 ppm by volume on a dry basis at standard conditions corrected to 10 percent oxygen as a 12-hour average.

b. Sources subject to this section shall also comply with Rule 17-2.710, FAC (Continuous Emission Monitoring) and Rule 17-2.960(1), FAC (Compliance Schedules).

#### 6. Other Combustion Devices Used to Incinerate Total Reduced Sulfur Emissions.

a. 5 ppm by volume on a dry basis at standard conditions corrected to 10 percent oxygen as a 12-hour average.

b. Sources subject to this provision may include but shall not be limited to power boilers, carbonaceous fuel burning equipment and incinerators.

c. Sources subject to this section shall also comply with Rule 17-2.710, FAC, and Rule 17-2.960(1), FAC.

#### 7. Alternate New Technology.

If the owner or operator of any source subject to an emissions limit in Rule 17-2.600(4)(c), FAC, wishes to apply a new alternate total reduced sulfur emissions control technology to the specific source that would result in an equivalent reduction in ambient total reduced sulfur impacts, but cannot be measured in the same terms as the applicable standard, such owner or operator may then request the Department to grant an alternate standard. The Department may grant an alternate total reduced sulfur emissions limit providing the owner or operator:

a. Demonstrates using EPA approved models

acceptable to the Department that over an acceptable uniform grid of receptor points extending from one-half mile to ten miles from the facility, the sum of the maximum one-hour concentrations attributable to the entire facility with all sources operating at their permitted capacity and complying with the emission limits specified in Rule 17-2.600(4)(c), FAC, and Rule 17-2.660, FAC, subtracted from the sum of the maximum one-hour concentrations attributable to the entire facility with all sources operating at their permitted capacity and using the proposed new technology is equal to or less than zero, and

b. Demonstrates using EPA approved models acceptable to the Department that the predicted maximum one-hour concentration of total reduced sulfur attributable to the entire facility with the sources included in the set of alternate emission limits operating at their permitted capacity and at the emission limits specified in Rule 17-2.600(4)(c), FAC, subtracted from the predicted maximum one-hour concentration of total reduced sulfur attributable to the entire facility with those sources operating at their permitted capacity under the alternate emission limits using the proposed new technology is equal to or less than zero, and

c. Demonstrates that either a procedure in Rule 17-2.710(3), FAC, or a reliable equivalent alternate procedure exists to continuously monitor the emissions of total reduced sulfur from the source either directly or through the measurement of surrogate parameters. The procedure selected must be demonstrated to produce quantifiable and enforceable results.

#### 8. Alternate Emission Limiting Standards

a. The owner or operator of any waste-pulp mill with sources subject to the total reduced sulfur emission limits in Rule 17-2.600(4)(c)1.—d., FAC, and the compliance schedules in Rule 17-2.960(1), FAC, may request that the Department approve an alternate set of total reduced sulfur emission limits for non-NSPS sources within the mill. The application for an alternate set of emission limits shall list, at a minimum:

(i) The sources to be included.

(ii) The proposed alternate emission limits for each source.

(iii) A schedule for compliance that includes the information required in Rule 17-2.960(1)(b), FAC (Compliance Schedules), for the facility.

Such alternate set of emission limits shall be subject to the criteria shown in Rule 17-2.600(4)(c)8.b.—e., FAC.

b. The alternate set of emission limits may apply to all non-NSPS sources of total reduced sulfur within the facility whether or not such sources are subject to an emission limit in Rule 17-2.600(4)(c), FAC, subject to the following provisions:

(i) The total emissions from the sources for which alternate standards are requested shall not exceed those which would occur if those sources were operated at existing capacity and all sources were meeting the limits in Rule 17-2.600(4)(c), FAC.