

ADEQ OPERATING AIR PERMIT

Pursuant to the Regulations of the Arkansas Operating Air Permit Program, Regulation #26:

Permit #: 597-AOP-R3

IS ISSUED TO:

Georgia-Pacific Corporation - Crossett Paper Operations
100 Paper Mill Road
Crossett, AR 71635
Ashley County
CSN: 02-0013

THIS PERMIT AUTHORIZES THE ABOVE REFERENCED PERMITTEE TO INSTALL, OPERATE, AND MAINTAIN THE EQUIPMENT AND EMISSION UNITS DESCRIBED IN THE PERMIT APPLICATION AND ON THE FOLLOWING PAGES. THIS PERMIT IS VALID BETWEEN:

February 28, 1997

and

February 27, 2002

AND IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

Keith A. Michaels

Date Modified

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SECTION I: FACILITY INFORMATION

PERMITTEE:	Georgia-Pacific Corporation - Crossett Paper Operations
CSN:	02-0013
PERMIT NUMBER:	597-AOP-R3
COUNTY:	Ashley
FACILITY ADDRESS:	100 Paper Mill Road Crossett, Arkansas 71635
CONTACT PERSON:	Helene Weber
PHONE NUMBER:	(870) 567-8482
REVIEWING ENGINEER:	Paula Parker
UTM North-South (X):	3667.483
UTM East-West (Y):	595.752
	Zone 15

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SECTION II: INTRODUCTION

Georgia-Pacific Corporation owns and operates a bleached Kraft pulp and paper mill in Crossett, Arkansas. This facility produces a variety of paper products on eight paper machines, two paper extruding machines and a lap pulp machine. The paper machines include two fine paper machines, one board paper machine and five tissue machines.

Georgia-Pacific Corporation-Crossett Paper Operations is subject to regulation under Regulation #18 (Air Code), Regulation #19 (SIP), Regulation #26 (Title V), and Prevention of Significant Deterioration (PSD).

Georgia-Pacific is also subject to 40 CFR Part 60, New Source Performance Standards (NSPS) Subpart A--General Provisions, Subpart D--Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced after August 17, 1971, Subpart Kb--Standards of Performance for Volatile Organic Liquid Storage Vessels, and Subpart BB--Standards of Performance for Kraft Pulp Mills.

Georgia-Pacific is potentially subject to 40 CFR Part 61 National Emissions Standards for Hazardous Air Pollutants (NESHAP) Subpart M--National Emission Standard for Asbestos, depending on future asbestos removal and demolition activities, and specific sections of 40 CFR Part 82 Protection of Stratospheric Ozone.

Georgia-Pacific is subject to 40 CFR Part 63 NESHAP Subpart S--National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry. Georgia-Pacific is also subject to applicable provisions of the air standards to control emissions of toxic air pollutants from the chemical recovery area at pulp and paper mills.

Process Description

Chips are received at the Mill by truck and rail. Upon unloading, the chips are pneumatically blown to the distribution tower and are then dropped onto the chip piles. Round logs are also received at the facility. After storage, the logs are transported to the debarking drums for bark removal. The debarked logs are fed to the chipper and the produced chips are then conveyed to the chip piles. The chips from the chip piles are screened prior to entering the chip silos. Rejected chips from the screening are burned in the Mill's combination boiler. The removed bark is pneumatically sent to bark piles for storage and eventual use in the Mill's boilers.

The chips from the silos are conveyed to the Mill's thirteen batch digesters. The function of the digesters is to cook the chips using white liquor, black liquor, and the steam from the boilers. In the digestion process, these products are combined and cooked at a set pressure and temperature

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

until the quality pulp is obtained. At the end of each “cook”, the blow valves at the bottom of the digesters are opened, with the resulting pressure forcing the pulp mass through a blow line into one of the two blow tanks.

The blow tanks are at atmospheric pressure and the contents of the digesters enter the blow tanks tangentially at the top. When the chips hit the lower pressure in the tank, the liquor and water flash, blowing the chips apart to produce the pulp fibers. The vapors from the blow tanks are sent to the blow heat condensing system, where non-condensable gases (NCGs) are removed. The steam vapors are condensed in the accumulator tank and used as hot water on the washers. Knots (e.g. undercooked wood chips, irregularly shaped or overly thick pieces of wood, etc.) Are removed with the use of vibrating knotters/screens.

The pulp is washed to remove spent cooking chemicals. The Mill has two horizontal washers. In the washers, the wash water and pulp move in counter current directions. The washed pulp is passed through screening and cleaning stages which remove debris from the stock. After screening, the pulp passes through the decker system, which thickens the pulp for storage in high density storage chests.

The unbleached Kraft pulp is taken from the high density storage chests for further processing in the bleach plant. The bleaching process removes the remaining lignin and Kraft color from the unbleached pulp. Bleaching is performed in several stages using chlorine dioxide, caustic soda, oxygen, and hydrogen peroxide.

Recovery describes the set of operations that recovers the spent cooking chemicals for reuse in the digesters. The recovery process utilizes a multi-effect evaporator to concentrate weak black liquor. The concentrated black liquor is burned in the Mill’s recovery furnace. The spent chemicals leave the recovery furnace from the bottom in a molten form and enter the smelt dissolving tanks. The causticizing operation reacts molten inorganic salts from the smelt dissolving tanks with weak wash water to form green liquor. This green liquor is then treated with slaked lime to form white liquor. The white liquor is then ready for use as the main cooking liquor in the digesters.

The facility, in order to accommodate production levels, may export black liquor to another mill with excess recovery capacity in exchange for white or green liquor. The ‘liquor-swapping’ is considered routine and normal for the industry, and equipment needed for the exchange has been present since the facility has been built.

Paper products are currently manufactured on eight paper machines, two paper extruding machines, and a lap pulp machine. The paper machines include two fine paper machines, one board paper machine, and five tissue machines. Each machine has its own stock preparation,

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

head box, wire section, press section, dryer sections, coater section, calendar stacks, reel, and drum winder. The two fine paper machines produce a variety of products including but not limited to bond, envelope, tablet, and copier paper.

Tissue and towel converting includes the operations involved with converting large parent rolls of tissue/towel from the machines into finished product. This includes rewinding onto smaller sized rolls, folding, printing, cutting, packaging, and shipping.

The two extruding machines receive board from the board paper machine and from outside board customers and apply a polymer coating. Rolls of board are loaded onto an unwind stand before passing through a calendar stack, where they are subjected to burners which flame seal the board. An extruded poly sheet is then pressed together with the board.

The lap machine produces wet lap pulp, which is commonly used as another source of fiber during interrupted production and operational problems. The wet lap pulp is also sold to outside customers as a final product.

The Mill boilers generate steam and provide electrical power. The boilers include two, multi-fuel combination boilers and two, natural gas/oil-fired boilers.

Summary of Proposed Modification

The Crossett Mill is adding a No. 9 Machine to produce tissue and towel. The No. 9 Machine is projected to have a production capacity of 250 Machine Dried Tons of paper (MDT) per day. The installation will include the machine itself along with associated stock preparation and converting equipment. The proposed modification exceeds the PSD significant rate thresholds for PM₁₀, VOC, CO, and NO_x.

In addition to the traditional Yankee dryer, the new machine will also employ through air dried (TAD) technology. Emission points associated with the machine will include the wet end of the machine, where stock is delivered; the vacuum pumps, which remove moisture; the exhaust from the Yankee hood; the exhaust from the TAD dryers; the dry end of the machine, where the finished sheet is wound; and the converting operations. In addition, fugitive VOC emissions will result throughout the process from the addition of various additives (e.g., pH control chemicals, resins, fabric release chemicals, etc.).

It is anticipated that a portion, and perhaps a significant quantity, of the pulp for the No. 9 Machine will come from off-site sources. The remainder would come from the existing pulp mill softwood. The Mill is already purchasing some pulp inventory from off-site sources.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

As part of the installation of the No. 8 Tissue Machine in 1998, the PSD permitting applicability analysis was evaluated on a past actual-to-future potential basis, taking into account associated increases in the pulp mill, recovery area, and causticizing. This project does not seek to increase the potential emission or throughput rates for any of these pieces of equipment. These potential rates have not yet been realized from the installation of the No. 8 Machine.

With regard to steam and boiler throughputs, the Mill is planning to use bleach plant filtrate to heat demineralized water in order to reduce mill-wide steam usage. This is a separate project from the installation of the No. 9 Machine. However, the steam that is no longer needed to heat the demineralized water will be more than sufficient to supply the No. 9 Machine. The project will involve the installation of a new stainless steel tank and pump in the bleach plant area to collect the filtrate from the existing filtrate chests. A new tube and shell heat exchanger will be installed near the 9A boiler feed water.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

PREVENTION OF SIGNIFICANT DETERIORATION
Permit #597-AOP-R3

Georgia-Pacific is proposing to install a new paper machine, the No. 9 Tissue Machine (SN-90). With the machine installation, several associated sources will be installed as well: Vacuum Pump Exhaust (SN-84), TAD Exhaust No. 1 (SN-85A), TAD Exhaust No.2 (SN-85B), Mist Elimination System (SN86), Dust Collection System (SN-87), Converting Repulper "A" (SN88), Yankee Aircap Exhaust and Emergency Exhaust (SN-89 and SN-89A), Converting Equipment Fugitive Emissions (SN-91), and a Fan Pump Silo Vent (SN-92). TAD Exhaust No. 1 has a heat rating of 90 MMBTU/hr, TAD Exhaust No. 2 is 50 MMBTU/hr, and the Yankee Aircap Exhaust is 21 MMBTU/hr. All three are natural gas fired. Georgia-Pacific has submitted a PSD permit application for this proposed modification addressing potential emissions from all modified and affected units.

A significant portion of the pulp for this modification will be purchased from off-site sources. The remainder would come from the existing pulp mill softwood. There will be no increase in pulp production as a result of this modification.

Annual emission rates are used to determine PSD applicability. The annual emission rates are calculated based on the increase between the average production levels for the 2 years prior to the modification (the calendar years 1999 and 2000) and the maximum annual potential process rates.

A net emissions increase is determined by taking the emissions increase associated with the proposed modification, subtracting source-wide creditable contemporaneous emissions decreases, and then adding source-wide creditable contemporaneous emissions increases. An emissions increase or decrease is creditable only if the reviewing authority has not relied on it in issuing a PSD permit for the source in the past, and if the permit is still in effect when the increase in actual emissions from the proposed modification occurs. To be contemporaneous, changes in actual emissions must occur within a period beginning five years prior to the date construction is expected to commence and ending when the emissions increase from the modification occurs. Each increase or decrease is calculated as the difference between the new allowable emission rate and either the old level of actual emissions or allowable emissions, whichever is lower.

The net emissions increase for this project will exceed the PSD significant emission rates for nitrogen oxides (NO_x), particulate matter (PM₁₀), carbon monoxide (CO), and volatile organic compounds (VOC). A summary of the net emissions increases that are above the PSD significant emission rates is contained in the following table.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

Pollutant	Net Emission Increase (tpy)	PSD Significant Emission Rate (tpy)
PM ₁₀	24.5	15.0
SO ₂	0.7	40.0
VOC*	323.2	40.0
CO	127.0	100.0
NO _x	64.4	40.0
TRS	0	10.0

* the VOC term includes the contribution from air toxics and HAPs that are also VOCs.

The new paper machine will not require an increase in potential emissions or throughput rates for any pre-existing piece of equipment.

SIGNIFICANCE ANALYSIS

The significance analysis considers the net emissions change associated with new, modified, and affected emissions units to determine whether or not the increased emissions have a significant impact upon off-property receptors. Significant impacts are defined by ambient concentration thresholds that are commonly referred to as Modeling Significant Levels.

In the significance analysis, PM₁₀, NO_x, and CO were modeled. The significance analysis shows the impacts from the new sources, SN-84 through SN-92. The modeling results of the significance analysis were below the Monitoring De Minimis Concentrations and thus no ambient monitoring was required.

PM₁₀

Averaging Period	Highest Modeled PM ₁₀ Concentration (Fg/m ³)	Modeling Significance Level (Fg/m ³)
Annual	0.51	1.0

Averaging Period	Highest Modeled NO _x Concentration (Fg/m ³)	Modeling Significance Level (Fg/m ³)	Monitoring De Minimis Concentration (Fg/m ³)
24-Hour	4.86	5.0	10.0

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

NO_x

Averaging Period	Highest Modeled NO _x Concentration (Fg/m ³)	Modeling Significance Level (Fg/m ³)	Monitoring De Minimis Concentration (Fg/m ³)
Annual	0.84	1.0	14.0

CO

Averaging Period	Highest Modeled CO Concentration (Fg/m ³)	Modeling Significance Level (Fg/m ³)	Monitoring De Minimis Concentration (Fg/m ³)
8-Hour	33.38	500	575

Averaging Period	Highest Modeled CO Concentration (Fg/m ³)	Modeling Significance Level (Fg/m ³)
1-Hour	83.11	2000

There is no Modeling Significance Level for VOCs. Monitoring may be required with an increase in VOCs over 100 tons per year. In lieu of preconstruction ozone monitoring, existing monitoring data may be used. Based on an analysis of ambient current data from all Arkansas stations, the maximum 1-hour ozone value observed from a non-urban area was 0.084 ppm at Caney Creek National Wilderness. The increase in ozone concentration (0.0172 ppm) from the net emissions increase was determined using the Scheffe Method. The sum of the increase in ozone concentration and the background ozone concentration (0.101 ppm) is below the National Ambient Air Quality Standard for ozone (0.12 ppm).

Projected Project Impact Ozone Concentration (ppm)	Background Value from Caney Creek National Wilderness (2000) (ppm)	Ozone Concentration (Total ppm)	1-Hour NAAQS for Ozone
0.0172	0.084	0.101	0.120

FULL IMPACT ANALYSIS

A full impact analysis was not conducted because the ambient concentrations did not exceed the Modeling Significance Levels.

CLASS I AREA ANALYSIS

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

The Class I Area nearest to the Crossett Paper Operations is the Caney Creek National Wilderness Area located in the Ouachita National Forest near Mena, Arkansas. This Class I Area is located approximately 293 km from the Crossett Paper Operations. Because the distance is more than 100 km, a Class I impact analysis was not performed.

ADDITIONAL IMPACTS ANALYSIS

The additional impacts analysis is needed to assess possible adverse affect on visibility and other air quality-related values. The additional impacts analysis depends on existing air quality, the quantity of emissions, and the sensitivity of local soils, vegetation, and visibility in the source's impact area. The additional impacts analysis is presented in three parts: (1) a growth analysis, (2) a soils and vegetation impacts analysis, and (3) a visibility impairment analysis. The additional impacts analysis shows no adverse effects on visibility or other air quality related values.

Growth Analysis

The elements of the growth analysis include a projection of the associated industrial, commercial, and residential growth that will occur in the area due to the source, including the potential impact upon ambient air due to growth. There is no anticipated increase in industrial, commercial, or residential growth in the area as a result of the proposed installation.

Soil and Vegetation Analysis

As demonstrated in the air quality analysis, the maximum off-property ground-level concentrations of PM₁₀, NO_x, and CO are less than the Secondary NAAQS level, which are designed to protect welfare, such as soils and vegetation. As such, it is concluded that the proposed emission rates will not have a significant impact upon local soils or vegetation. No additional analysis has been performed.

Visibility Impairment Analysis

There are no Class I areas within 100 km of Crossett Paper Operations. Therefore, a visibility impairment analysis was not necessary.

BACT Analysis

For a PSD permit, the applicant must perform a BACT analysis for each new unit. For a PSD permit the applicant must also perform a BACT analysis for each affected emission unit that is

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

undergoing a physical change or change in the method of operation. The BACT evaluation must address each pollutant subject to PSD review emitted by the unit. For this permitting action, NO_x, SO₂, PM₁₀, CO, and VOC emissions increases have been determined to be significant and are therefore subject to PSD review. BACT is determined on a case-by-case basis for each source taking into account technical feasibility, energy and environmental impacts, and cost.

A BACT analysis was conducted for No. 9 Tissue Machine (SN-90). With the machine installation, several associated sources will be installed as well: Vacuum Pump Exhaust (SN-84), TAD Exhaust No. 1 (SN-85A), TAD Exhaust No.2 (SN-85B), Mist Elimination System (SN-86), Dust Collection System (SN-87), Converting Repulper "A" (SN-88), Yankee Aircap Exhaust and Emergency Exhaust (SN-89 and SN-89A), Converting Equipment Fugitive Emissions (SN-91), and a Fan Pump Silo Vent (SN-92). TAD Exhaust No. 1 has a heat rating of 90 MMBTU/hr, TAD Exhaust No. 2 is 50 MMBTU/hr, and the Yankee Aircap Exhaust is 21 MMBTU/hr.

BACT Analysis for PM₁₀ from Vacuum Pump Exhaust (SN-84)

Particulate matter emissions are not normally expected from this type of source; however, in order to be conservative, a minimal quantity of particulate matter has been assigned to this source. A search of the RBLC database by the applicant revealed no controls specifically for vacuum pumps associated with paper machines. An emission limit of 0.0002 gr/ft³ or 0.14 lb/hr can be achieved at this source with no additional controls.

BACT Analysis for PM₁₀ from TAD No. 1 and No. 2 Exhaust (SN-85A and SN-85B)

The burner capacity of these units will be 90 MMBTU/hr and 50 MMBTU/hr respectively. The primary emissions from this source will be the products of combustion. Natural gas is a clean fuel with respect to particulate matter. A search of the RBLC database by the applicant revealed that no add-on particulate matter control is required when natural gas is used as the combustion fuel in combination with good combustion practice. All three entries chose an emission limit of 0.0164 lb/MM BTU fired as BACT. However, these three sources were Yankee burners, unlike the sources in question which are TAD units. There are no entries currently in the RBLC for a TAD unit. Data available shows 54 similar tissue machines operating world wide having no particulate control devices operating in the TAD sections. A BACT emission limit of 0.0217 lb/MMBTU was chosen in addition to good combustion practices and natural gas as a fuel source.

BACT Analysis for PM₁₀ from Mist Elimination System (SN-86)

Particulate matter emissions are not normally expected from this type of source; however, in order to be conservative, a minimal quantity of particulate matter has been assigned to this

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

source. Searches were conducted for RBLC determinations revealed that there were no entries specifically for mist elimination systems associated with a paper machine. Out of proposed control add-on devices, none were selected for BACT control. An emission limit of 0.0002 gr/ft³ can be obtained without control equipment.

BACT Analysis for PM₁₀ from Dust Collection System (SN-87)

Tissue paper has a light, dusty nature and has the capability of releasing particulate matter as it is wound onto bulk rollers. Paper machines are not subject to any NSPS. A search of the RACT/BACT/LAER Clearinghouse (RBLC) database by the applicant produced one entry for particulate matter from a paper machine. A wet scrubber was selected as control for that source. The Dust Collection System of the No. 9 Tissue Machine will be equipped with a wet scrubber to collect particulate matter emissions. The BACT emission limit for the wet scrubber of the Dust System will be 0.001 gr/dry scf. The facility currently employs the same control technology on their No. 8 Paper Machine Dust Collection System (SN-81).

BACT Analysis for PM₁₀ from Converting Repulper "A" (SN-88)

Searches of the RBLC were conducted to identify control technologies. Out of the twenty-six entries for paper machine sources, none of the entries were specifically for a converting repulper associated with a paper machine. Uncontrolled emissions for this source are 0.086 lb/hr or 0.38 tons/yr. Add-on controls for this source would be infeasible due to the low levels of emissions involved and the expense. The corresponding BACT emission limit of 0.001 gr/ft³ can be achieved uncontrolled.

BACT Analysis for PM₁₀ from Yankee Aircap Exhaust (SN-89)

The total capacity of the Yankee burner is 21 MMBTU/hr and natural gas-fired. Three entries in the RBLC indicated that for particulate matter emissions from a paper machine burner or dryer, clean fuel and a corresponding emission limit of 0.0164 lb/MMBTU/hr were chosen as BACT. The proposed emission limit for the Yankee Aircap Exhaust is 1.5 tons per year at the BACT emission rate.

BACT Analysis for PM₁₀ from No. 9 Tissue Machine Fugitive Emissions (SN-90)

A search of the RBCL indicated that there were no entries involving particulate emissions from a paper machine. Because this is a source of fugitive emissions, it is not technically feasible to equip the machine with an add-on control device. The proposed BACT emission rates for the No. 9 Paper Machine Fugitive emissions are 0.94 lb/hr and 4.1 ton/yr, and can be achieved without controls.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

BACT Analysis for PM₁₀ from Converting Equipment Fugitive Emissions (SN-91)

A search of the RBCL indicated that there were no entries involving particulate emissions from converting equipment associated with a paper machine. Because this is a source of fugitive emissions, it is not technically feasible to equip the machine with an add-on control device. The proposed BACT emission rates for the Converting Equipment Fugitive emissions are 0.18 lb/hr and 0.78 ton/yr, and can be achieved without controls.

BACT Analysis for VOC from Vacuum Pump Exhaust (SN-84)

The proposed uncontrolled volatile organic compound emission rate for the Vacuum Pump Exhaust are 0.15 lb/hr and 0.6 tons/year. Searches of the RBLC for determinations relating to this source type revealed no entries. Potential add-on controls are deemed too expensive for the emission rates involved.

BACT Analysis for VOC from TAD No. 1 and No. 2 Exhaust (SN-85A and SN-85B)

TAD technology is new, and as such, the actual allocation or distribution of VOC emissions throughout the process is not well understood. It is possible that a portion of these emissions may exit via stacks, as opposed to being fugitive in nature. Some "pilot" trials have indicated that, depending on machine configuration, a substantial portion of the VOCs associated with the additives may exit with the combustion gases from the TAD and Yankee hood exhausts and from the vent associated with vacuum pump. A manufacturer's estimate of 0.045 lb/MMBTU was chosen as BACT, rather than the RBLC determination rate of 0.0192 lb/MMBTU. The BACT emission limit for this source is 2.3 lb/hr (0.045 lb/MMBTU).

BACT Analysis for VOC from Mist Elimination System (SN-86)

Volatile organic compounds associated with this source are from the various additives from the paper-making process may exit via the Mist Elimination System exhaust. Searches of the RBLC revealed no determinations for this type of source associated with paper machines. Uncontrolled emissions for this source are estimated from NCASI factors as 0.60 lb/hr and 2.6 tons/year (0.063 lb/ADTFP).

BACT Analysis for VOC from Dust Collection System (SN-87)

Additional VOCs associated with the various additives from the No. 9 Paper Machine may exit the Dust Collection System exhaust. The proposed volatile organic compound emission rates for the Dust Collection System are 0.10 pound per hour and 0.12 ton per year. There are no known add-on volatile organic compound control device applications for dust collection systems

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

associated with paper machines. The Dust Collection Systems currently employed by the facility are assumed to not have VOC emissions and therefore require no control for VOCs. In addition, potential add-on controls would be expensive in relation to the pollutants removed. No control is selected as BACT for the volatile organic compound emissions from the Dust Collection System. The corresponding BACT emission limit is 0.10 pound per hour.

BACT Analysis for VOC from Converting Repulper “A” (SN-88)

Trim from the tissue converting operations is sent to the repulper by pneumatic systems. The only VOC emitted from this source is chloroform. Searches of the RBLC were conducted for historical determinations for VOC emissions from converting repulpers, and while no specific information was found regarding this particular type of equipment, one entry did involve chloroform emissions from pulp bleaching. No control was proposed for this entry. The volatile organic compound emission rate is 0.10 lb/hr and 0.23 ton/year. Little data is available regarding add-on control devices for converting repulpers associated with paper machines. Furthermore, due to the low levels of emissions involved, add-on control devices would be cost prohibitive. No control is selected as BACT for the volatile organic compound emissions from the Converting Repulper “A”, with a corresponding BACT emission limit of 0.10 lb/hr.

BACT Analysis for VOC from Yankee Aircap Exhaust (SN-89)

Searches of the RBLC were conducted to identify control technologies for the control of volatile organic compound emissions from combustion sources associated with paper machines. Three out of four entries chose no control as BACT for VOC emissions with the following emission limits: 0.0192, 0.0564, and 0.0192 lb/MMBTU. The fourth entry chose waterborne coating technology as BACT, which is not applicable to the burners themselves and can be eliminated as a control option. The proposed emission rate for this source is 1.8 tons/year, which is consistent with test values for similar sources in the facility and includes a safety factor of 20%. Add-on control devices for VOCs have not traditionally been selected as BACT at a combustion source for a Yankee Exhaust Hood. There are no known add-on control device applications for this type of source. In addition, burners of this size associated with other industries are also not typically equipped with an add-on control device for volatile organic compound emissions. Furthermore, a substantial portion of the VOCs associated with the additives may exit with combustion gases from this source. No control is selected as BACT, with an emission limit of 0.40 lb/hr (0.0192 lb/MMBTU).

BACT Analysis for VOC from No. 9 Tissue Machine Fugitive Emissions (SN-90)

Emissions are estimated based on use of various, “representative” additives (e.g. resins, fabric release agents, glues, lubricants, etc.); actual additives may vary. The TAD technology is new

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

and as such, the actual allocation or distribution of the VOC emissions throughout the process is not well understood at this time. It is possible that a portion of these emissions may exit via stacks as opposed to being fugitive in nature. A substantial portion of the VOC emissions have been shown in pilot trials to exit with the combustion gases from the TAD and Yankee hood exhausts as well as from the vent associated with the vacuum pump exhaust, depending upon machine configuration. Eight entries in the RBLC were found that involved volatile organic compound emissions from a paper machine source. Seven out of the eight entries did not specify a numeric emission limit. The numeric limit of the single entry was 0.045 lb per ton of paper, which is a paper machine at the Crossett Mill. None of the entries required add-on control technologies. Based on the gathered information, no control is selected as BACT for the fugitive volatile organic compound emissions from the machine itself. The No. 9 Machine could not operate at the emission levels taken by the one entry found from the RBLC (No. 8 Paper Machine). The process by which the paper is made and the chemicals used are different from the No. 8 Paper Machine, which uses a Yankee Dryer and has one roller. Therefore, none of the release agents are required. The TAD unit has several rollers and requires the release agents. Because the VOC emissions are directly related to the raw materials being used and the release agents, a BACT emission limit of 6.8 pounds per ton of MDT (Machine Dried Tons of Paper) at 66.2 lb/hr can be achieved. This translates to approximately a 0.66% weighted average of VOC content for all the additives used. A similar machine in Missouri (which has not been added to the RBLC as of yet) has a BACT limit of 2% VOCs based upon a weighted average. The chosen BACT emission rate is more restrictive.

BACT Analysis for VOC from Converting Equipment Fugitive Emissions (SN-91)

The proposed volatile organic compound emission rates for the Converting Equipment Fugitive Emissions are included in the chemicals used on the paper machine (SN-90). Because this is a source of fugitive emissions it is not technically feasible to equip the source with an add-on control device. No entries for VOCs from converting equipment were found in the RBLC. No control is selected as BACT for the volatile organic compound emissions from this source. There is no corresponding BACT emission limit because the emissions are included with the paper machine (SN-90).

BACT Analysis for VOC from Fan Pump Silo Vent (SN-92)

Emissions for this source were based upon Wet End Emissions Test Results posted in a NCASI publication. Additional VOCs associated with the various additives may exit this source. The proposed volatile organic compound emission rate is 0.029 lb/hr and 0.13 ton per year. Little data is available regarding the installation of volatile organic compound add-on control devices to a paper machine source of this type. Searches of the RBLC revealed no entries specific to a fan pump silo vent associated with a paper machine. Add-on control devices would be too

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

expensive to maintain as compared to the uncontrolled total emissions from this source. No control is selected as BACT, with a corresponding emission limit of 0.1 lb/hr.

BACT Analysis for NO_x from TAD No. 1 and No. 2 Exhaust (SN-85A and SN-85B)

Searches of the RBLC were conducted to identify control technologies for the control of nitrogen oxides from combustion sources associated with paper machines. Four entries specifically involved nitrogen oxides emissions from a paper machine burner or dryer. All four entries chose low-NO_x burners as BACT, three of which chose emission limits of 0.0913 lb/MMBTU which the fourth chose no numeric limit. Other facilities that have gone through PSD-review recently also selected the same type of control technology with slightly higher emission limits of 0.115 lb/MMBTU and 0.10 lb/MMBTU. Due to the configuration of the combustion source, post combustion controls cannot be utilized. The exhaust gas from the paper machine burner directly heats the tissue paper. Therefore, the injection of a chemical such as ammonia is not feasible because the chemical would combine with the paper with adverse results. Recirculating the flue gas would require a higher oxygen content than would normally be available. The combustion gas would also contain suspended particulates that would foul burner passages, potentially creating a fire hazard by exposure to the paper product. The facility currently employs low NO_x with the three other paper machines and therefore, has experience with this type of equipment and can properly operate it. The BACT chosen was Low NO_x burners with a corresponding emission limit of 0.0913 lb/MMBTU (12.8 lb/hr). This limit is consistent with manufacturer's estimates as well.

BACT Analysis for NO_x from Yankee Aircap Exhaust (SN-89)

Searches of the RBLC were conducted to identify control technologies for the control of nitrogen oxides from combustion sources associated with paper machines. Four entries specifically involved nitrogen oxides emissions from a paper machine burner or dryer. All four entries chose low-NO_x burners as BACT, three of which chose emission limits of 0.0913 lb/MMBTU which the fourth chose no numeric limit. Other facilities that have gone through PSD-review recently also selected the same type of control technology with slightly higher emission limits of 0.115 lb/MMBTU and 0.10 lb/MMBTU. Due to the configuration of the combustion source, post combustion controls cannot be utilized. The exhaust gas from the paper machine burner directly heats the tissue paper. Therefore, the injection of a chemical such as ammonia is not feasible because the chemical would combine with the paper with adverse results. Recirculating the flue gas would require a higher oxygen content than would normally be available. The combustion

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

gas would also contain suspended particulates that would foul burner passages, potentially creating a fire hazard by exposure to the paper product. The facility currently employs low NO_x with the three other paper machines and therefore, has experience with this type of equipment and can properly operate it. The BACT chosen is Low NO_x burners, with a corresponding emission limit of 0.0913 lb/MMBTU (1.9 lb/hr). This limit is consistent with manufacturer's estimates as well.

BACT Analysis for CO from TAD No. 1 and No. 2 Exhaust (SN-85A and SN-85B)

Searches of the RBLC were conducted to identify control technologies for carbon monoxide from combustion sources associated with paper machines. All three entries found for such sources chose good combustion practices as BACT for carbon monoxide emissions. Emission limits were 0.1139 lb/MMBTU, 0.2124 lb/MMBTU, and 0.1139 lb/MMBTU. Two proposed control technologies, thermal incineration and catalytic incineration, are technically infeasible nor are proven technologies for the control of carbon monoxide emissions from combustion sources associated with paper machines. The BACT for this source will be good combustion practice, with an emission limit of 0.18 lb/MMBTU (25.2 lb/hr). This limit is provided by the equipment vendor, and is within range for similar sources of the RBLC.

BACT Analysis for CO from Yankee Aircap Exhaust (SN-89)

Searches of the RBLC were conducted to identify control technologies for carbon monoxide from combustion sources associated with paper machines. All three entries found for such sources chose good combustion practices as BACT for carbon monoxide emissions. Emission limits were 0.1139 lb/MMBTU, 0.2124 lb/MMBTU, and 0.1139 lb/MMBTU. Two proposed control technologies, thermal incineration and catalytic incineration, are technically infeasible nor are proven technologies for the control of carbon monoxide emissions from combustion sources associated with paper machines. The BACT for this source will be good combustion practice, with an emission limit of 0.18 lb/MMBTU (3.8 lb/hr). This limit is provided by the equipment vendor, and is within range for similar sources of the RBLC.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

BACT Summary

Emission Unit	Pollutant	BACT Determination
Vacuum Pump Exhaust (SN-84)	PM/PM ₁₀ VOC	No Control No Control
TAD Exhaust (SN-85A and SN-85B)	PM/PM ₁₀ VOC CO NO _x	Clean Fuel No Control Good Combustion Practice Low-NO _x Burners
Mist Elimination System (SN-86)	PM/PM ₁₀ VOC	No Control No Control
Dust Collection System (SN-87)	PM/PM ₁₀ VOC	Scrubber No Control
Concerting Repulper "A" (SN-88)	PM/PM ₁₀ VOC	No Controls No Controls
Yankee Aircap Exhaust (SN-89)	PM/PM ₁₀ VOC CO NO _x	Clean Fuel No Control Good Combustion Practices Low-NO _x Burners
No. 9 Tissue Machine Fugitive Emissions (SN-90)	PM/PM ₁₀ VOC	No Control No Control
Converting Equipment Fugitive Emissions (SN-91)	PM/PM ₁₀ VOC	No Control No Control
Fan Pump Silo Vent (SN-92)	VOC	No Control

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

FACILITY EMISSION SUMMARY

A summary of facility wide emissions is provided in the following table. Specific emission unit information is located by the indicated cross reference pages.

CRITERIA POLLUTANT EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	ton/yr	
Total Allowable Emissions		PM	480.2	2099.4	N/A
		PM ₁₀	480.2	2099.4	
		SO ₂	2510.7	10994.7	
		VOC*	1129.2	4520.9	
		CO	5650.0	24683.3	
		NO _x	1427.5	6184.2	
		TRS	67.6	95.8	
		Pb	8.43	36.94	
03	10A Boiler	PM	100.1	438.4	32
		PM ₁₀	100.1	438.4	
		SO ₂	21.0	92.0	
		VOC	151.0	661.4	
		CO	600.0	2628.0	
		NO _x	500.5	2192.2	
		Pb	0.36	1.6	
18	5A Boiler	PM	28.7	125.6	42
		PM ₁₀	28.7	125.6	
		SO ₂	551.0	2413.4	
		VOC	3.3	14.2	
		CO	14.8	64.5	
		NO _x	92.0	403.0	
		Pb	0.93	4.1	
19	6A Boiler	PM	60.0	262.8	45
		PM ₁₀	60.0	262.8	
		SO ₂	992.0	4345.0	
		VOC	2.8	12.0	
		CO	14.0	61.4	
		NO _x	165.0	722.7	
		Pb	1.51	6.6	
22	9A Boiler	PM	90.0	394.2	48
		PM ₁₀	90.0	394.2	
		SO ₂	594.0	2601.7	
		VOC	49.7	217.7	
		CO	504.0	2207.5	
		NO _x	345.0	1511.1	
		Pb	5.53	24.2	

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

CRITERIA POLLUTANT EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	ton/yr	
25	No. 4 Lime Kiln	PM	27.1	118.7	78
		PM ₁₀	27.1	118.7	
		SO ₂	36.8	160.8	
		VOC	19.4	85.0	
		CO	625.0	2737.5	
		NO _x	72.0	186.3	
		Pb	0.09	0.4	
		TRS	1.5	6.6	
26	8R Recovery Furnace	PM	93.0	407.3	67
		PM ₁₀	93.0	407.3	
		SO ₂	300.0	1314.0	
		VOC	39.4	172.5	
		CO	3750.0	16425.0	
		NO _x	190.0	832.2	
		TRS	9.0	39.4	
		Pb	0.01	0.04	
27A	Smelt Dissolving Tank (East)	PM	10.0	43.8	74
		PM ₁₀	10.0	43.8	
		SO ₂	3.0	13.2	
		VOC	18.5	80.7	
		NO _x	2.0	8.5	
		TRS	2.2	9.5	
27B	Smelt Dissolving Tank (West)	PM	10.0	43.8	74
		PM ₁₀	10.0	43.8	
		SO ₂	3.0	13.2	
		VOC	18.5	80.7	
		NO _x	2.0	8.5	
		TRS	2.2	9.5	
30	Bleach Plant	VOC	13.0	56.6	63
		CO	80.7	353.5	
33	Line 1 Washer	Emissions are routed to the incinerator			60
34	Line 2 Washer	VOC	21.1	92.1	60
		TRS	1.3	5.4	
35F	Aeration Stabilization Basin	VOC	16.5	70.8	121
40	Methanol Storage Tank	VOC	37.5	1.2	123

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

CRITERIA POLLUTANT EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	ton/yr	
46	Tissue Machine No. 4 Burners	PM	0.4	1.4	92
		PM ₁₀	0.4	1.4	
		SO ₂	0.1	0.1	
		VOC	1.2	4.9	
		CO	4.3	18.8	
		NO _x	3.4	14.7	
47	Tissue Machine No. 5 Burners	PM	0.4	1.5	95
		PM ₁₀	0.4	1.5	
		SO ₂	0.1	0.1	
		VOC	1.2	5.2	
		CO	4.5	19.7	
		NO _x	2.0	8.4	
48	Tissue Machine No. 6 Burners	PM	1.0	4.2	99
		PM ₁₀	1.0	4.2	
		SO ₂	0.1	0.2	
		VOC	1.2	4.9	
		CO	6.7	29.1	
		NO _x	5.4	23.4	
49	Tissue Machine No. 7 Burners	PM	0.7	3.0	103
		PM ₁₀	0.7	3.0	
		SO ₂	0.1	0.1	
		VOC	0.8	3.4	
		CO	4.7	20.4	
		NO _x	3.8	16.4	
50	Tissue Machine No. 7 Dust System	PM	0.5	2.0	103
		PM ₁₀	0.5	2.0	
51	Tissue Machine No. 6 Rewinder	PM	0.5	1.8	99
		PM ₁₀	0.5	1.8	
52	Tissue Machine No. 6 Dust System	PM	0.5	1.8	99
		PM ₁₀	0.5	1.8	
54	Tissue Machine No. 5 Dust System	PM	0.3	1.1	95
		PM ₁₀	0.3	1.1	
57F	Woodyard Debarking Drum	PM	0.5	2.2	55
		PM ₁₀	0.5	2.2	
58F	Woodyard Chip Storage Piles & Chippers	VOC	525.0	2299.5	55
59	Batch Digesters (13)	VOC	55.9	244.6	57
		TRS	4.3	18.9	

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

CRITERIA POLLUTANT EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	ton/yr	
60	Line 1 Decker	VOC	4.7	19.9	60
61	Line 2 Decker	VOC TRS	3.6 0.7	15.6 2.7	60
62	Fine Paper Machine No. 1	VOC	4.9	20.6	85
63	Fine Paper Machine No. 2	VOC	5.5	22.7	85
64	Board Paper Machine No. 3	VOC	8.1	34.6	87
65	Board Paper Machine No. 3 Burners	PM PM ₁₀ SO ₂ VOC CO NO _x	0.2 0.2 0.1 0.1 0.6 2.1	0.9 0.9 0.1 0.2 2.3 9.1	87
66	Tissue Machine No. 4	VOC	1.8	6.7	92
67	Tissue Machine No. 4 Dust System	PM PM ₁₀	0.3 0.3	1.1 1.1	92
68	Tissue Machine No. 5	VOC	0.7	2.1	95
69	Tissue Machine No. 6	VOC	2.6	10.5	99
70	Tissue Machine No. 7	VOC	2.4	9.5	103
73	Lap Pulp Machine	VOC	1.0	4.4	119
75	Pulp Storage Chests	VOC	9.3	40.7	123
76F	Black Liquor Storage Basin No. 1	VOC	28.0	122.8	123
78F	Road Emissions	PM PM ₁₀	44.7 44.7	195.8 195.8	123

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

CRITERIA POLLUTANT EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	ton/yr	
79	Tissue Machine No. 8 Burners	PM	0.9	3.6	106
		PM ₁₀	0.9	3.6	
		SO ₂	0.1	0.2	
		VOC	1.0	4.2	
		CO	5.7	24.9	
		NO _x	4.6	20.0	
80	Tissue Machine No. 8	VOC	0.5	1.8	106
81	Tissue Machine No. 8 Dust System	PM	1.7	7.2	106
		PM ₁₀	1.7	7.2	
82F	West Landfill	VOC	4.3	18.7	123
83	Incinerator	PM	1.2	5.2	129
		PM ₁₀	1.2	5.2	
		SO ₂	9.1	39.9	
		VOC	0.8	3.5	
		CO	6.0	26.3	
		NO _x	23.0	100.7	
		TRS	0.9	3.8	
84	Vacuum Pump Exhaust	PM	0.2	0.6	110
		PM ₁₀	0.2	0.6	
		VOC	0.2	0.7	
85A	TAD Exhaust 1	PM	0.9	3.9	110
		PM ₁₀	0.9	3.9	
		SO ₂	0.1	0.3	
		VOC	3.6	15.8	
		CO	14.4	63.1	
		NO _x	7.3	32.0	
85B	TAD Exhaust 2	PM	1.8	7.8	110
		PM ₁₀	1.8	7.8	
		SO ₂	0.1	0.2	
		VOC	2.7	11.8	
		CO	10.8	47.3	
		NO _x	5.5	24.0	
86	Mist Elimination System	PM	0.2	0.7	110
		PM ₁₀	0.2	0.7	
		VOC	0.6	2.6	

Georgia-Pacific Corporation - Crossett Paper Operations

Permit #: 597-AOP-R3

CSN #: 02-0013

CRITERIA POLLUTANT EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	ton/yr	
87	Dust Collector System (All VOCs are Chloroform)	PM	1.1	4.7	110
		PM ₁₀	1.1	4.7	
		VOC	0.1	0.2	
88	Converting Repulper "A" (All VOCs are Chloroform)	PM	0.1	0.4	110
		PM ₁₀	0.1	0.4	
		VOC	0.1	0.3	
89	Yankee Aircap Exhaust	PM	0.4	1.5	110
		PM ₁₀	0.4	1.5	
		SO ₂	0.1	0.2	
		VOC	0.4	1.8	
		CO	3.8	8.4	
		NO _x	1.9	16.6	
90	No. 9 Paper Machine Fugitive Emissions	PM PM ₁₀ VOC	1.2	4.9	110
91	Converting Equipment Fugitive Emissions		1.2	4.9	
			66.3	289.8	
92	Fan Pump Silo Vent	VOC	0.1	0.2	110

NON-CRITERIA POLLUTANT EMISSION SUMMARY			
Source No.	Pollutant	lb/hr	ton/yr
Total Allowable Emissions	Acetaldehyde	9.31	40.16
	Acetone	8.4	33.7
	Acrolein	0.8	1.6
	Ammonia	2.4	10.5
	Arsenic	0.2	0.4
	Benzene	1.4	5.8
	Beryllium	0.1	0.1
	Biphenyl	1.16	5.16
	Cadmium	0.3	0.7

Georgia-Pacific Corporation - Crossett Paper Operations**Permit #: 597-AOP-R3****CSN #: 02-0013**

NON-CRITERIA POLLUTANT EMISSION SUMMARY			
Source No.	Pollutant	lb/hr	ton/yr
	Carbon Disulfide	0.3	1.0
	Carbon Tetrachloride	0.1	0.1
	Chlorine	8.0	35.0
	Chlorine Dioxide	4.7	20.5
	Chloroform	14.22	61.73
	Chromium VI	0.1	0.1
	Cobalt	0.1	0.5
	1,2 Dichloroethylene	1.0	2.8
	Epichlorohydrin	0.08	0.33
	Formaldehyde	2.42	9.86
	n-Hexane	1.29	4.47
	Hydrogen Chloride	6.2	27.2
	Manganese	0.1	0.2
	Mercury	0.1	0.2
	MEK	4.2	18.1
	Methanol	125.53	385.0
Total Allowable Emissions	Methylene Chloride	46.62	203.7
	MIBK	1.0	4.3
	Naphthalene	24.2	105.8
	Nickel	1.7	6.9
	Ozone	2.2	9.3
	Phenol	0.5	1.82
	Selenium	0.1	0.2
	Sulfuric Acid	6.0	26.3
	Terpenes	23.9	102.4
	Toluene	0.82	3.60

Georgia-Pacific Corporation - Crossett Paper Operations

Permit #: 597-AOP-R3

CSN #: 02-0013

NON-CRITERIA POLLUTANT EMISSION SUMMARY			
Source No.	Pollutant	lb/hr	ton/yr
	1,2,4 Trichlorobenzene	0.7	2.9
	Xylene	0.1	0.1
	Zinc	95.7	419.0

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SECTION III: PERMIT HISTORY

The first paper machine at Georgia-Pacific Crossett Paper Operations was constructed in 1937.

On March 27, 1970, Georgia-Pacific was issued its first permit, Permit #16-A. On August 30, 1971 Georgia-Pacific was issued its second permit, Permit #68-A.

Permit #133-A, issued on December 15, 1972, allowed the installation of an extrusion and a laminating machine.

Permit #137-A was also issued on December 15, 1972. It permitted the installation of a fume scrubber on the digester feed system to control emissions from the digester and the installation of a cyclone and baghouse to control emissions from the sanding operations.

Permit #144-A, issued on March 28, 1973, allowed the installation of the 9A power boiler.

Permit #149-A was also issued on March 28, 1973. It permitted the installation of an odor control system to collect, hold and distribute gases which are normally vented from the pulp mill digesters. The gases are burned in the lime kiln.

Permit #140-A was issued on July 23, 1976. This permit dealt with equipment maintenance problems such as the repair of boilers and the replacement of control devices. This permit allowed Georgia-Pacific to operate an additional boiler to provide steam while the existing boilers are taken out of service for repairs.

Permit #411-A, issued to Georgia-Pacific on May 27, 1977, permitted the installation of a venturi scrubber for the control of lime dust emissions from the lime slaker and lime handling system at the mill.

Permit #597-A, issued to Georgia-Pacific on March 6, 1980, permitted the installation of new equipment in the pulping and power utility areas. In the pulping area the 8R Recovery Furnace, the No. 4 Lime Kiln, a set of evaporators, new digesters and new washers were installed. In the power utility area two wood fire boilers each equipped with a multiclone and a venturi scrubber were installed.

Permit #597-AR-1 was issued on July 23, 1982. It was modified by Permit #597-AR-2, issued on November 1, 1984. Permit #597-AR-2 superseded all previously issued air permits. Permit #597-AR-2 allowed Georgia-Pacific to convert a recovery furnace to a power boiler, the 10A Boiler. This was a major modification of a major stationary source and therefore was subject to PSD review. Only NO_x and CO became subject to the PSD requirements because of reductions in all the other pollutants. Modeling predicted that the ambient air concentrations due to the

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

increase in NO_x and CO emission would be less than the de minimis levels. Therefore, preconstruction ambient air monitoring was not required.

Permit #597-AR-3 was issued to Georgia-Pacific on August 18, 1988. Emission limits for the 10A Boiler, 8R Recovery Furnace and the No. 4 Lime Kiln were revised as the result of testing.

Permit #597-AR-4 was issued on July 11, 1989. Expansions at the bleach plant were permitted.

Permit #597-AR-5 was issued to Georgia-Pacific on March 18, 1993. This permit included sources at the mill that were not previously permitted. It allowed Georgia-Pacific to burn Tire Derived Fuel (TDF), other scrap rubber products and Refuse Derived Fuel (RDF) in the 10A and 9A Boilers. In addition, a new hardwood brownstock washer system was installed to replace the existing drum washers installed in 1968.

Georgia-Pacific was issued a Prevention of Significant Deterioration (PSD) permit, Permit #1449-A, on May 18, 1993. Stack testing of the 8R Recovery Furnace showed that the current permitted emission rate for NO_x was not attainable. The allowable emission rate of NO_x from the 8R Recovery Furnace was increased by 402.1 tons per year, thus triggering PSD review.

Permit #597-AOP-R0, issued on February 28, 1997, was the first operating air permit issued to Georgia-Pacific Corporation Crossett Paper Operations under Regulation #26. This permit incorporated sources that were not previously permitted. Some allowable emission rates were modified from the previous permit to reflect new emission factors, new test data and/or alternate fuel. This permit also incorporated the Prevention of Significant Deterioration (PSD) permit application submitted in relation to the installation of the new No. 8 Tissue Machine.

Permit #597-AOP-R1, issued on June 29, 1999, was the second Title V operating permit issued to Georgia-Pacific Corporation -- Crossett Paper Operations under Regulation #26. The changes in this permit were solely related to air pollutant emission rates and did not affect the Mill's production limits established in the original Title V permit. One purpose of this modification was to address the requirements of a CAO regarding carbon monoxide emissions from the Bleach Plant Scrubber (SN-30). Due to a lack of industry or regulatory information suggesting otherwise, carbon monoxide emissions from the bleach plant were not included in Permit #597-AOP-R0. Specific Condition #73 of that permit required Georgia-Pacific to test for carbon monoxide emissions from SN-30. The required stack testing was performed on September 24, 1997. Emission rates were derived from the stack tests and were added to the permit. On February 15, 1999, revised versions of Regulations #18 and #19 became effective. All regulatory citations in the permit were changed in 597-AOP-R1 to reflect the new regulations. Compliance demonstrations for all opacity limits have been added to the permit. Opacity demonstrations include, but are not limited to, daily or weekly observations and monitoring of control equipment operating parameters. The compliance demonstrations for all emission limits

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

have been specifically identified in the permit. Applicable provisions of NSPS and NESHAP Subparts have been written into the permit.

The second purpose of this modification was to address the addition of pollution control equipment to comply with the requirements of 40 CFR Part 63 Subpart S -- National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry (NESHAP Subpart S or "Cluster Rule").

This modification qualified as a Pollution Control Project (PCP), and thus the new point source (an Incinerator, SN-83) was exempt from PSD.

Section 19.8 of Regulation #19 provides that the Lime Kiln at GP Crossett should have a TRS emission limit of 8 ppm. Because a source limited to 5 ppm was routed to the Lime Kiln, the lime kiln was assigned a 5 ppm limit. 597-AOP-R1 stipulated that once the HVLC system was routed to collect the emissions from the 5 ppm source, the emission rate for the Lime Kiln could be raised back to 8 ppm. This change has been completed.

597-AOP-R2 was finalized on December 14, 1999. A typographical error was made in a previous permit application which listed the minimum scrubbing liquid flow rate to the #4 tissue machine scrubber (SN-67) as 300 gpm. The actual minimum scrubber flow rate was 70 gpm. Note that the #4 and #5 tissue machine scrubbers are similar and that the #5 tissue machine minimum scrubbing flow rate was also 70 gpm. There was no emission increase associated with this minor modification.

On March 29, 1999, EPA Region 6 issued GP Crossett Paper Operations a NOV addressing the failure to install a continuous opacity monitor for SN-03, the 10A boiler. The current permit will be revised, in a timely manner, to assure compliance with any new applicable requirements resulting from the resolution of this issue.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SECTION IV: EMISSION UNIT INFORMATION

SN-03
10A Boiler

Source Description

The 10A Boiler is capable of firing woodwaste, refuse derived fuel (RDF), agriculture derived fuel (ADF), tire derived fuel (TDF) and natural gas. A woodwaste storage pile is associated with the 10A Boiler. Woodwaste consists of bark, wood scraps, wax coated paper, wax coated cardboard, wax coated sawdust, creosote treated railroad crossties and paper pellets (waste paper and wax paper). The majority of the woodwaste for the boiler is delivered by truck and occasionally by rail. It is then transferred by conveyors to either the 9A or the 10A woodwaste storage pile.

RDF and ADF are directly added to the chip piles. RDF consists of pelletized paper, lawn clippings and similar materials that will not have a plastics content greater than 10%. TDF and other scrap rubber products are stored in segregated piles near the woodwaste piles. TDF is loaded several times a day by a front end loader into feeder bins in the vicinity. These solid fuels are then fed onto a conveyor system and delivered to the boilers. ADF consists of, but is not limited to, corn cobs, shucks, and vegetable starch.

The 7R Recovery Boiler was originally constructed in 1968. In 1984 it was converted to the 10A Boiler. The 10A Boiler (SN-03) is a 1001 million Btu per hour combination fuel boiler used to generate steam. This boiler is equipped with a wet venturi scrubber.

The 10A Boiler can operate under three different operating scenarios. The boiler can fire up to 1001 million Btu per hour of which only 669 million Btu per hour can be from natural gas. The first fuel firing scenario consists of the 10A Boiler burning just natural gas. The second fuel firing scenario consists of the 10A Boiler burning a combination of fuels none of which is natural gas. The third fuel firing scenario consists of the 10A Boiler burning a combination of fuels of which the contribution of natural gas can not exceed 669 million Btu per hour.

The 10A Boiler is subject to NSPS Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced after August 17, 1971. Monitoring of NO_x is not required since the results of a performance test showed emissions of less than 70% of the applicable standard (40 CFR 60.45 (b)(3)). Monitoring of SO₂ is not required under 40 CFR 60.45(b)(1). The CO and NO_x emissions from this boiler are regulated under PSD.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

Specific Conditions

- Pursuant to §19.501 et seq of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control, effective February 15, 1999 (Regulation #19), and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Conditions #14 thru #17.

Pollutant	lb/hr	ton/yr
Scenario #1: Natural gas only (669 MMBtu/hr)		
SO ₂	1.0	4.4
VOC	2.0	8.8
Scenario #2: Any combination of woodwaste, TDF, RDF & ADF (1001 MMBtu/hr)		
SO ₂	21.0	92.0
VOC	151.0	661.4
Pb	0.36	1.6
Scenario #3: Natural gas and any combination of woodwaste, TDF, RDF & ADF (1001 MMBtu/hr)		
SO ₂	21.0	92.0
VOC	151.0	661.4
Pb	0.36	1.6

- Pursuant to §19.304, §19.501 et seq, and §19.901 et seq of Regulation #19; 40 CFR Part 52 Subpart E; and 40 CFR §60.44, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Conditions #12 and #13.

Pollutant	lb/hr	ton/yr
Scenario #1: Natural gas only (669 MMBtu/hr)		
NO _x	133.8	586.1
	0.2 lb/MMBtu	
Scenario #3: Natural gas and any combination of woodwaste, TDF, RDF & ADF (1001 MMBtu/hr)		

Georgia-Pacific Corporation - Crossett Paper Operations**Permit #: 597-AOP-R3****CSN #: 02-0013**

Pollutant	lb/hr	ton/yr
NO _x	300.3	1315.4
	0.3 lb/MMBtu	

3. Pursuant to §19.501 et seq and §19.901 et seq of Regulation #19, and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Conditions #12 and #13.

Pollutant	lb/hr	ton/yr
Scenario #1: Natural gas only (669 MMBtu/hr)		
CO	133.8	596.1
	0.2 lb/MMBtu	
Scenario #2: Any combination of woodwaste, TDF, RDF & ADF (1001 MMBtu/hr)		
CO	600.0	2628.0
	0.6 lb/MMBtu	
NO _x	500.5	2192.2
	0.5 lb/MMBtu	
Scenario #3: Natural gas and any combination of woodwaste, TDF, RDF & ADF (1001 MMBtu/hr)		
CO	600.0	2628.0
	0.6 lb/MMBtu	

4. Pursuant to §19.304 and §19.501 et seq of Regulation #19, 40 CFR Part 52 Subpart E, and 40 CFR §60.42, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Condition #14 thru #17 and #19.

Pollutant	lb/hr	ton/yr
Scenario #1: Natural gas only (669 MMBtu/hr)		
PM PM ₁₀	66.9	293.1
	0.1 lb/MMBtu	

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

Pollutant	lb/hr	ton/yr
Scenario #2: Any combination of woodwaste, TDF, RDF & ADF (1001 MMBtu/hr)		
PM PM ₁₀	100.1	438.4
	0.1 lb/MMBtu	
Scenario #3: Natural gas and any combination of woodwaste, TDF, RDF & ADF (1001 MMBtu/hr)		
PM PM ₁₀	100.1	438.4
	0.1 lb/MMBtu	

5. Pursuant to §19.503 of Regulation #19 and 40 CFR Part 52 Subpart E, when operating under Scenario #2 or Scenario #3, the permittee shall not cause to be discharged to the atmosphere from the 10A Boiler gases which exhibit an opacity greater than 20% except that emissions greater than 20% opacity but not exceeding 60% opacity will be allowed for not more than six (6) minutes in the aggregate in any consecutive 60-minute period, provided that such emissions will not be permitted more than three (3) times during any 24-hour period.

Pursuant to §18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, when operating under Scenario #1, the permittee shall not cause to be discharged to the atmosphere from the 10A Boiler gases which exhibit an opacity greater than 5%.

Pursuant to §19.304 of Regulation #19 and 40 CFR 60.42, the permittee shall not cause to be discharged to the atmosphere from the 10A Boiler gases which exhibit an opacity greater than 20% except for one six-minute period per hour of not more than 27 percent opacity.

Compliance shall be demonstrated by compliance with Specific Condition #6 for fuel Scenarios #2 and #3. Compliance shall be demonstrated during fuel Scenario #1 (natural gas only) by the use of natural gas only. The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Part 60 Appendix A. See also Compliance Plan on page 137.

6. Pursuant to §19.303 of Regulation #19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the scrubber shall be kept in good working condition at all times and shall meet the conditions shown in the following table. The scrubber liquid flow rate and the gas pressure drop across the unit shall be measured daily. The results shall be kept on site and be available to Department personnel upon request.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN	Control Equipment	Parameter	Units	Operation Limits (minimum)
03	scrubber	recirculation liquid flow rate	gal/min	1,500
		gas pressure drop across unit	in. H ₂ O	5

7. Pursuant to §18.801 of the Arkansas Air Pollution Control Code, effective February 15, 1999 (Regulation #18), and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the 10A Boiler shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Conditions #14 thru #17.

Pollutant	lb/hr	ton/yr
Acetaldehyde	0.8	3.5
Acrolein	0.1	0.3
Arsenic	0.1	0.1
Benzene	0.8	3.3
Beryllium	0.1	0.1
Cadmium	0.1	0.1
Carbon Disulfide	0.2	0.6
Chromium +6	0.1	0.1
Cobalt	0.1	0.1
Formaldehyde	0.4	1.7
n-Hexane	0.6	2.5
Hydrogen Chloride	3.6	15.8
Mercury	0.1	0.1
Methanol	1.5	6.6
Methylene Chloride	27.1	118.4
MIBK	0.6	2.5
Naphthalene	14.1	61.4

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

Pollutant	lb/hr	ton/yr
Phenol	0.1	0.1
Toluene	0.5	2.0
Zinc	68.9	301.6

8. The 10A Boiler (SN-03) is subject to and shall comply with all applicable provisions of 40 CFR Part 60 Subpart A General Provisions.

The 10A Boiler (SN-03) is subject to and shall comply with all applicable provisions of 40 CFR Part 60 Subpart D Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971 because it burns natural gas, was constructed after August 17, 1971 and is greater than 250 million Btu per hour.

A copy of Subpart D is provided in Appendix B. Applicable provisions of Subpart D include, but are not limited to, the following:

- A. Pursuant to 40 CFR §60.42(a)(1), the permittee shall not cause to be discharged into the atmosphere gases which contain particulate matter in excess of 0.10 lb per million Btu derived from gaseous fossil fuel of fossil fuel and wood residue.
- B. Pursuant to 40 CFR §60.42(a)(2), the permittee shall not cause to be discharged into the atmosphere gases which exhibit greater than 20 percent opacity except for one six minute period per hour of not more than 27 percent opacity.
- C. Pursuant to 40 CFR §60.43(c), compliance with the sulfur dioxide standard shall be based on the total heat input from all fossil fuels burned, including gaseous fuels.
- D. Pursuant to 40 CFR §60.44(a)(1), the permittee shall not cause to be discharged into the atmosphere gases which contain nitrogen oxides, expressed as NO₂, in excess of 0.20 lb per million Btu derived from gaseous fossil fuel.
- E. Pursuant to 40 CFR §60.44(a)(2), the permittee shall not cause to be discharged into the atmosphere gases which contain nitrogen oxides, expressed as NO₂, in excess of 0.30 lb per million Btu derived from gaseous fossil fuel and wood residue.
- F. Pursuant to 40 CFR §60.45(a), the permittee shall install, calibrate, maintain, and operate continuous monitoring systems for measuring the opacity of emissions, sulfur dioxide emissions, nitrogen oxides emissions, and either oxygen or carbon dioxide except as provided in paragraph (b) of this section. See Compliance Plan on page 137.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

- G. Pursuant to 40 CFR §60.45(b)(1), the permittee is not required to install a continuous monitoring system for sulfur dioxide emissions.
 - H. Pursuant to 40 CFR §60.45(b)(3), the permittee is not required to install a continuous monitoring system for nitrogen oxides emissions.
 - I. Pursuant to 40 CFR §60.45(g), excess emission and monitoring system performance reports shall be submitted to the Department for every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter. Each excess emission and MSP report shall include the information required in 40 CFR §60.7(c).
 - J. Pursuant to 40 CFR §60.46(a), in conducting the performance tests required in 40 CFR §60.8, the permittee shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in 40 CFR §60.8(b). Acceptable alternative methods and procedures are given in paragraph (d) of this section.
9. In accordance with §19.304 of Regulation #19 and 40 CFR §60.7(c), the permittee shall continue to submit quarterly excess emission reports to the following address:
- Arkansas Department of Environmental Quality
Air Division
Attn: Air Enforcement Branch
Post Office Box 8913
Little Rock, Arkansas 72119
10. Pursuant to §19.703 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the Continuous Emission Monitors (CEM) on the 10A Boiler shall be operated in accordance with the Department Continuous Emission Monitoring Systems Conditions (Appendix A) and the applicable Performance Standards of 40 CFR Part 60 Appendix B.
11. Pursuant to §19.703 and §19.901 et seq of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall properly maintain and operate the following existing continuous monitoring instrumentation: O₂, pressure drop across the scrubber and the liquid supply flow at the 10A Boiler (SN-03).
12. Pursuant to §19.703 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, all continuous monitoring data may, at the discretion

Georgia-Pacific Corporation - Crossett Paper Operations

Permit #: 597-AOP-R3

CSN #: 02-0013

of the Department, be used to determine violations of the NO_x or CO emissions limits. Continuous monitoring data shall be used to demonstrate compliance with the three different fuel firing scenarios of the 10A Boiler.

13. Pursuant to §19.703 and §19.901 et seq of Regulation #19, and 40 CFR Part 52 Subpart E, compliance with the NO_x and CO limits for the 10A Boiler shall be demonstrated by monitoring flue gas O₂ and maintaining the hourly average percent O₂ within the following limits when the steam flow is greater than 100,000 pounds per hour (at actual stack gas moisture contents):
 - A. Full load on natural gas and any combination of woodwaste, RDF, TDF and ADF: not less than 2.0% nor more than 7.5% O₂
 - B. Reduced load (100,000 to 400,000 pounds per hour steam) on natural gas and any combination of woodwaste, RDF, TDF and ADF: not less than 2.2% not more than 8.0% O₂
 - C. Full load on gas only: not less than 1.5% nor more than 6.0% O₂
 - D. Reduced load (100,000 to 400,000 pounds per hour steam) on gas only: not less than 1.5% nor more than 4.5% O₂

The above limits for gas only shall not apply when firing gas only for periods of two consecutive hours or less due to an unscheduled outage of woodwaste feed, instead, the above limits for natural gas and any combination of woodwaste, RDF, TDF and ADF shall apply. Records shall be kept of each unscheduled outage. An operation outside of these average limits shall constitute noncompliance with this Specific Condition and shall be reported quarterly along with excess emissions (see Specific Condition #25). The permittee shall maintain records of flue gas O₂ for the 10A Boiler and shall make them available to Department personnel upon request.

14. Pursuant to §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, TDF, ADF, RDF, woodwaste and natural gas may be used as fuel in the 10A Boiler. Creosote treated railroad crossties shall not constitute more than 22.5% of the fuel requirement of the 10A Boiler.
15. Pursuant to §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, the permittee shall not burn in excess of 669 thousand standard cubic feet (scf) of natural gas per hour or 5860.5 million scf of natural gas per twelve consecutive months in the 10A Boiler (SN-03).

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

16. Pursuant to §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, the permittee shall not burn in excess of 100 pounds of TDF per minute in the 10A Boiler (SN-03).
17. Pursuant to §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, the permittee shall not burn in excess of 250 tons of RDF per day in the 10A Boiler.
18. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall maintain records which demonstrate compliance with Specific Conditions #14, #15, #16, and #17. The permittee shall maintain records of the types and quantities of fuels being used in the 10A Boiler. These records shall be sufficient to demonstrate compliance with the three fuel firing scenarios of the 10A Boiler. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each month's individual data shall be submitted to the Department in accordance with General Provision #7.
19. Pursuant to §19.702 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall annually test particulate matter emissions from the 10A Boiler (SN-03). The next testing shall be completed on or before December 31, 1999. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 5 found in 40 CFR Part 60 Appendix A. The testing shall be conducted using a representative fuel mixture. The proportions of each permitted fuel in the representative fuel mixture shall be based upon the month during which the fuel that generates the highest particulate matter emissions was used in greatest proportion. During the test the permittee shall operate the boiler within 10 percent of the rated throughput capacity. If 90 percent of the rated throughout capacity can not be achieved, the permittee shall be limited to 11 percent above the actual tested throughput.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN-18
5A Boiler

Source Description

The 5A Boiler (SN-18) is a 220 million Btu per hour boiler. The boiler is able to burn natural gas and specification grade oil. The 5A Boiler was manufactured in 1953. The boiler has never been modified and is therefore not subject to regulation under NSPS Subpart D or Db. The 5A Boiler can use specification grade oil and natural gas as fuel. Specification grade oil consists of new oil, used oil, used oil absorbent material and pitch from the production of tall oil. However, used oil absorbent material is not used as a fuel in the 5A Boiler.

Specific Conditions

20. Pursuant to § 19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Conditions #25 and #27.

Pollutant	lb/hr	ton/yr
PM ₁₀	28.7	125.6
SO ₂	551.0	2413.4
VOC	3.3	14.2
CO	14.8	64.5
NO _x	92.0	403.0
Pb	0.93	4.1

21. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Condition #25.

Pollutant	lb/hr	ton/yr
PM	28.7	125.6

Georgia-Pacific Corporation - Crossett Paper Operations

Permit #: 597-AOP-R3

CSN #: 02-0013

22. Pursuant to §19.503 of Regulation #19 and 40 CFR Part 52 Subpart E, when using specification grade oils or a combination of specification grade oils and natural gas, the permittee shall not cause to be discharged to the atmosphere from the 5A Boiler gases which exhibit an opacity greater than 20% except that emissions greater than 20% opacity but not exceeding 60% opacity will be allowed for not more than six (6) minutes in the aggregate in any consecutive 60-minute period, provided such emissions will not be permitted more than three (3) times during any 24-hour period.

Pursuant to §18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, when operating using natural gas only, the permittee shall not cause to be discharged to the atmosphere from the 5A Boiler gases which exhibit an opacity greater than 5%.

Compliance with this opacity limit while using specification grade oils or a combination of specification grade oils and natural gas shall be demonstrated by compliance with Specific Condition #23. Compliance with this opacity limit while using natural gas only shall be demonstrated by the use of natural gas. The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Part 60 Appendix A.

23. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, when using specification grade oils or a combination of specification grade oils and natural gas, the permittee shall conduct daily observations of the opacity from the 5A Boiler, and keep a record of these observations. If visible emissions are detected, then the permittee shall conduct a 6-minute opacity reading in accordance with EPA Reference Method 9. The results of these observations shall be kept on site and shall be made available to Department personnel upon request.
24. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee estimates the emission rates set forth in the following table will not be exceeded. The pollutant emission rates are effectively limited by Specific Condition #25.

Pollutant	lb/hr	ton/yr
Beryllium	0.1	0.1
Cadmium	0.1	0.1
Cobalt	0.1	0.2
Formaldehyde	0.1	0.4
Mercury	0.1	0.1
Nickel	0.6	2.3
Selenium	0.1	0.1

Georgia-Pacific Corporation - Crossett Paper Operations

Permit #: 597-AOP-R3

CSN #: 02-0013

25. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, specification grade oils and natural gas may be used as fuel in the 5A Boiler.
26. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records which demonstrate compliance with Specific Condition #25. The records shall be updated on a monthly basis and shall include periods of usage for each type (not quantities) of fuels used. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.
27. Pursuant to §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, the sulfur content of the specification grade oils shall not exceed 1.0% by weight.
28. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, the sulfur content of the fuel oil shall be verified by testing or vendors' guarantees. The permittee shall maintain a record of each fuel shipment and the associated sulfur content. This record shall be updated with each shipment, kept on site, shall be made available to Department personnel upon request and may be used by the Department for enforcement purposes. This report shall be submitted to the Department in accordance with General Provision #7.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN-19
6A Boiler

Source Description

The 6A Boiler (SN-19) is a 357 million Btu per hour boiler. The boiler is able to burn natural gas and specification grade oil. The 6A Boiler was manufactured in 1962. The boiler has never been modified and is therefore not subject to regulation under NSPS Subpart D or Db. The 6A Boiler can use specification grade oil and natural gas as fuel. Specification grade oil consists of new oil, used oil, used oil absorbent material and pitch from the production of tall oil. However, used oil absorbent material is not used as a fuel in the 6A Boiler.

Specific Conditions

29. Pursuant to § 19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Conditions #34 and #36.

Pollutant	lb/hr	ton/yr
PM ₁₀	60.0	262.8
SO ₂	992.0	4345.0
VOC	2.8	12.0
CO	14.0	61.4
NO _x	165.0	722.7
Pb	1.51	6.6

30. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Condition #34.

Pollutant	lb/hr	ton/yr
PM	60.0	262.8

Georgia-Pacific Corporation - Crossett Paper Operations

Permit #: 597-AOP-R3

CSN #: 02-0013

31. Pursuant to §19.503 of Regulation #19 and 40 CFR Part 52 Subpart E, when using specification grade oils or a combination of specification grade oils and natural gas, the permittee shall not cause to be discharged to the atmosphere from the 6A Boiler gases which exhibit an opacity greater than 20% except that emissions greater than 20% opacity but not exceeding 60% opacity will be allowed for not more than six (6) minutes in the aggregate in any consecutive 60-minute period, provided such emissions will not be permitted more than three (3) times during any 24-hour period.

Pursuant to §18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, when operating using natural gas only, the permittee shall not cause to be discharged to the atmosphere from the 5A Boiler gases which exhibit an opacity greater than 5%.

Compliance with this opacity limit while using specification grade oils or a combination of specification grade oils and natural gas shall be demonstrated by compliance with Specific Condition #32. Compliance with this opacity limit while using natural gas only shall be demonstrated by the use of natural gas. The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Part 60 Appendix A.

32. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, when using specification grade oils or a combination of specification grade oils and natural gas, the permittee shall conduct daily observations of the opacity from the 6A Boiler, and keep a record of these observations. If visible emissions are detected, then the permittee shall conduct a 6-minute opacity reading in accordance with EPA Reference Method 9. The results of these observations shall be kept on site and shall be made available to Department personnel upon request.
33. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee estimates the emission rates set forth in the following table will not be exceeded. The pollutant emission rates are effectively limited by Specific Condition #34.

HAP	lb/hr	ton/yr
Arsenic	0.1	0.2
Beryllium	0.1	0.1
Cadmium	0.1	0.4
Cobalt	0.1	0.2
Formaldehyde	0.2	0.6

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

HAP	lb/hr	ton/yr
Manganese	0.1	0.2
Mercury	0.1	0.1
Nickel	0.9	3.7
Selenium	0.1	0.1

34. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, specification grade oils and natural gas may be used as fuel in the 6A Boiler.
35. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR Part 52 Subpart E, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records which demonstrate compliance with Specific Condition #34. The records shall be updated on a monthly basis and shall include periods of usage for each type (not quantities) of fuels used. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.
36. Pursuant to §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, the sulfur content of the specification grade oils shall not exceed 1.0% by weight.
37. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, the sulfur content of the fuel oil shall be verified by testing or vendors' guarantees. The permittee shall maintain a record of each fuel shipment and the associated sulfur content. This record shall be updated with each shipment, kept on site, shall be made available to Department personnel upon request and may be used by the Department for enforcement purposes. This report shall be submitted to the Department in accordance with General Provision #7.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN-22
9A Boiler

Source Description

The 9A Boiler is capable of firing tire derived fuel (TDF), agriculture derived fuel (ADF), refuse derived fuel (RDF), non-condensable gases (NCGs), woodwaste, specification grade oil, natural gas and sludge. A woodwaste storage pile is associated with the 9A Boiler. Woodwaste consists of bark, wood scraps, wax coated paper, wax coated cardboard, wax coated sawdust, creosote treated railroad crossties and paper pellets (waste paper and wax paper). Bark from the debarker in the Woodyard is pneumatically transferred to the 9A pile. A cyclone is located at the end of the pneumatic transfer line to control particulate matter emissions. The majority of the woodwaste is delivered by truck and occasionally by rail. It is then transferred by conveyors to either the 9A or the 10A woodwaste storage pile.

RDF, ADF and sludge are directly added to the chip piles. RDF consists of pelletized paper, lawn clippings and similar materials that will not have a plastics content greater than 10%. TDF and other scrap rubber products are stored in segregated piles near the woodwaste piles. TDF is loaded several times a day by a front end loader into feeder bins in the vicinity. These solid fuels are then fed onto a conveyor system and delivered to the boilers. ADF consists of, but is not limited to, corn cobs, shucks, and vegetable starch.

Specification grade oil consists of new oil, used oil, used oil absorbent material and pitch from the production of tall oil. Used oil absorbent material shall include used oil filter paper, used rags, sorbant booms, etc. that meet the specification grade oil criteria (40 CFR 279.11).

The 9A Boiler (SN-22) is a 720 million Btu per hour combination fuel boiler used to generate steam. The 9A Boiler is equipped with a wet venturi scrubber. This boiler was constructed prior to 1971 and is therefore not subject to regulation under NSPS Subpart D or Db.

Georgia-Pacific installed the Incinerator (SN-83) to comply with the requirements of the Cluster Rule. The Incinerator is the primary combustion source of LVHC, HVLC, and SOG streams for the Mill. The No. 4 Lime Kiln (SN-25) and the 9A Boiler serve as backup combustion units during times when the Incinerator is offline.

Specific Conditions

Georgia-Pacific Corporation - Crossett Paper Operations

Permit #: 597-AOP-R3

CSN #: 02-0013

38. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Conditions #47 thru #52, #54, #56, #57, and #58.

Pollutant	lb/hr	ton/yr
PM ₁₀	90.0	394.2
SO ₂	594.0	2601.7
VOC	49.7	217.7
CO	504.0	2207.5
NO _x	345.0	1511.1
Pb	5.53	24.2

39. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Condition #49 thru #52, and #56.

Pollutant	lb/hr	ton/yr
PM	90.0	394.2

40. Pursuant to §19.503 of Regulation #19 and 40 CFR Part 52 Subpart E, for all fuel scenarios other than using natural gas only, the permittee shall not cause to be discharged to the atmosphere from the 9A Boiler gases which exhibit an opacity greater than 20% except that emissions greater than 20% opacity but not exceeding 60% opacity will be allowed for not more than six (6) minutes in the aggregate in any consecutive 60-minute period, provided such emissions will not be permitted more than three (3) times during any 24-hour period.
41. Pursuant to §18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, when operating using natural gas only, the permittee shall not cause to be discharged to the atmosphere from the 9A Boiler gases which exhibit an opacity greater than 5%.

Georgia-Pacific Corporation - Crossett Paper Operations**Permit #: 597-AOP-R3****CSN #: 02-0013**

Compliance with this opacity limit shall be demonstrated by compliance with Specific Condition #42 for all fuel scenarios other than using natural gas only. Compliance with this opacity limit while using natural gas only shall be demonstrated by the use of natural gas. The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Part 60 Appendix A.

42. Pursuant to §19.303 of Regulation #19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the scrubber shall be kept in good working condition at all times and shall meet the conditions shown in the following table. The scrubber liquid flow rate and the gas pressure drop across the unit shall be measured daily. The results shall be kept on site and be available to the Department personnel upon request.

SN	Control Equipment	Parameter	Units	Operation Limits (minimum)
22	scrubber	liquid flow rate	gal/min	1,500
		gas pressure drop across unit	in. H ₂ O	5

43. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Conditions #48 thru #52.

Pollutant	lb/hr	ton/yr
Acetaldehyde	0.6	2.5
Acrolein	0.1	0.2
Arsenic	0.1	0.1
Benzene	0.6	2.4
Beryllium	0.1	0.1
Cadmium	0.1	0.1
Carbon Disulfide	0.1	0.5
Chromium +6	0.1	0.1
Cobalt	0.1	0.1
Formaldehyde	0.3	1.2
n-Hexane	0.4	1.8

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

Pollutant	lb/hr	ton/yr
Hydrogen Chloride	2.6	11.4
Mercury	0.1	0.1
Methanol	1.1	4.8
Methylene Chloride	19.5	85.2
MIBK	0.4	1.8
Naphthalene	10.1	44.2
Nickel	0.2	0.8
Selenium	0.1	0.1
Toluene	0.4	1.5
Zinc	26.8	117.4

44. Pursuant to §19.703 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the Continuous Emission Monitors (CEM) on the 9A Boiler shall be operated in accordance with the Department Continuous Emission Monitoring Systems Conditions (Appendix A) and the applicable Performance Standards of 40 CFR Part 60 Appendix B.
45. Pursuant to §19.703 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall properly maintain and operate the following existing continuous monitoring instrumentation: O₂, pressure drop across the scrubber and liquid supply flow at the 9A Boiler.
46. Pursuant to §19.703 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, continuous monitoring data from the continuous monitoring instrumentation listed in Specific Condition #45 may, at the discretion of the Department, be used to determine violations of the emissions limits or conditions of this permit.
47. Pursuant to §19.703 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, compliance with the CO limit for the 9A Boiler shall be demonstrated by monitoring flue gas O₂ and maintaining the O₂ setpoint at not less than 2.0% O₂ (dry basis). Any operation outside this hourly average limit shall constitute noncompliance with this Specific Condition. The permittee shall maintain records of flue gas O₂ for the 9A Boiler and shall make them available to Department personnel upon request. These limits do not apply during startup and shutdown of the 9A Boiler. Startup and shutdown shall be defined as when the steam flow is less than 100,000 pounds per hour.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

48. Pursuant to §19.801 et seq of Regulation #19, the permittee may use the 9A Boiler as an alternate incinerator for NCGs.
49. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, specification grade oils, natural gas, woodwaste, TDF, ADF, RDF and wastewater sludge may be used as fuel in the 9A Boiler. Creosote treated railroad crossties shall not constitute more than 25% of the fuel requirement of the 9A Boiler.
50. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, the permittee shall not burn in excess of 35 pounds per minute of TDF in the 9A Boiler.
51. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, the permittee shall not burn in excess of 250 tons of RDF per day in the 9A Boiler.
52. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, the permittee shall not burn in excess of 200 tons of used oil absorbant material per month in the 9A Boiler. The used oil absorbant material shall meet the specification grade oil criteria found in 40 CFR 279.11.
53. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records which demonstrate compliance with Specific Conditions #49, #50, #51, and #52. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.
54. Pursuant to §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, the sulfur content of the specification grade oils shall not exceed 1.0% by weight.
55. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, the sulfur content of the fuel oil shall be verified by testing or vendors' guarantees. The permittee shall maintain a record of each fuel shipment and the associated sulfur content. This record shall be updated with each shipment, kept on site, shall be made available to Department personnel upon request and may be used by the Department for enforcement purposes. This report shall be submitted to the Department in accordance with General Provision #7.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

56. Pursuant to §18.1002 of Regulation #18, §19.702 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall annually test particulate matter emissions from the 9A Boiler (SN-22). The next testing shall be completed on or before December 31, 1999. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 5 found in 40 CFR Part 60 Appendix A. The testing shall be conducted using a representative fuel mixture. The proportions of each permitted fuel in the representative fuel mixture shall be based upon the month during which the fuel that generates the highest particulate matter emissions was used in greatest proportion. During the test the permittee shall operate the boiler within 10 percent of the rated throughput capacity. If 90 percent of the rated throughout capacity can not be achieved, the permittee shall be limited to 11 percent above the actual tested throughput.
57. Pursuant to §19.703 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, sulfur dioxide emission shall be determined through a mass balance based on incoming materials and worst-case firing of specification grade oil based on the limits in Specific Condition #54. This mass balance shall be submitted to the Department in accordance with General Provision #7.
58. Pursuant to §19.702 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall annually test nitrogen oxides emissions from the 9A Boiler (SN-22). The next testing shall be completed on or before December 31, 1999. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 7E as found in 40 CFR Part 60 Appendix A. The testing shall be done using a representative fuel mixture. The proportions of each permitted fuel in the representative fuel mixture shall be based upon the month during which the fuel that generates the highest nitrogen oxides emissions was used in greatest proportion. During the test the permittee shall operate the boiler within 10 percent of the rated throughput capacity. If 90 percent of the rated throughout capacity can not be achieved, the permittee shall be limited to 11 percent above the actual tested throughput.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN-57F and 58F
Woodyard

Source Description

Activities in the Woodyard include unloading incoming chips and wood, wood transferring, debarking (SN-57F), chipping (SN-58F), chip storage (SN-58F) and chip screening. Emissions are controlled by the use of water sprays.

Chips are delivered either by trucks or rail cars. The truck shipments are unloaded at an inclining truck dump. The rail car shipments are emptied by rolling the rail car over. From these two delivery points the chips are conveyed to the distribution tower and are then dropped into the chip piles. Water is added to the pneumatic transfer system to control dust.

In addition to chips, Georgia-Pacific also receives round logs. After storage, the logs are transported to the debarking drum for bark removal. The removed bark is pneumatically sent to the bark piles for storage and eventual use in the 9A and 10A Boilers of the Utilities Operations. The debarked logs are fed to the chipper. The chips that are produced are conveyed to the distribution tower and deposited onto the chip piles.

Chips from the chip piles are screened prior to entering the chip silo. Rejected chips from the screening process are sent to the combination boilers for use in steam production.

Specific Conditions

59. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Condition #61.

SN	Description	Pollutant	lb/hr	ton/yr
57F	Woodyard Debarking Drum	PM ₁₀	0.5	2.2
58F	Woodyard Chip Storage Piles & Chippers	VOC	525.0	2299.5

60. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Condition #61.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

Pollutant	lb/hr	ton/yr
PM	0.5	2.2

61. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, the permittee shall not process in excess of 8400 tons of wet wood (as received) in the Woodyard per day (30 day rolling average).
62. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records which demonstrate compliance with the limit in Specific Condition #61. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.
63. Pursuant to A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall continue to use water sprays in the discharge from the conveyance system in the Woodyard area to reduce particulate matter emissions.
64. Pursuant to A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, when the NCASI study used to quantify emissions for SN-58F becomes final, the permittee may at that time revise the permitted emission rates for SN-58F to reflect the final study.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN-59
Batch Digesters

Source Description

Chips from the Woodyard are sent to the pulp mill where they are converted to pulp using the chemical Kraft process. The chip conveying system regulates the flow of chips from the silos in the Woodyard to one of the thirteen batch digesters (SN-59). The function of the digesters is to cook chips using white liquor, black liquor and steam from the boilers. In the digestion process these products are combined and cooked at a set pressure and temperature until a quality pulp is obtained. At the end of each cook the blow valve at the bottom of the digester is opened. The pressure in the digester forces the pulp mass through a blow line into the blow tanks.

The mill has two large cylindrical blow tanks. All remaining process equipment in the Pulp Mill is divided into two parallel but separate lines. The blow tanks are at atmospheric pressure. When the chips hit the lower pressure in the tank the liquor and water flash, blowing apart the chips to produce the pulp fibers. The fibers and the spent cooking liquor fall to the bottom of the blow tank.

The vapors from the blow tanks exit through a vapor line at the top of each blow tank. The vapors from each tank are combined and sent to the blow heat condensing system. Flow to the condensing system is maintained in the absence of blow downs by steam supplements. There is a series of condensers that remove condensible gases (primarily turpentine) from the blow gas. The steam vapors are condensed in the accumulator tank and used as hot water for the washers. Gases that do not condense are sent to the Incinerator (primary), when it is installed, or the Lime Kiln (primary until the Incinerator is installed, backup afterwards) and/or the 9A Boiler (backup) for thermal destruction.

During the loading of chips the digester caps are opened allowing for emissions.

Specific Conditions

65. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Condition #70.

Pollutant	lb/hr	ton/yr
VOC	55.9	244.6

Georgia-Pacific Corporation - Crossett Paper Operations

Permit #: 597-AOP-R3

CSN #: 02-0013

66. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee estimates the pollutant emission rates set forth in the following table will not be exceeded. The pollutant emission rates are effectively limited by Specific Condition #70.

Pollutant	lb/hr	ton/yr
Acetone	0.2	0.7
Acrolein	0.1	0.1
Carbon Tetrachloride	0.1	0.2
Methanol	2.1	9.1
Terpenes	8.6	37.6

67. Pursuant to §19.304 and §19.501 et seq of Regulation #19, 40 CFR Part 52 Subpart E, and 40 CFR §60.283, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Condition #70.

Pollutant	lb/hr	ton/yr
TRS	4.3	18.9
	5 ppm _{dv} corrected to 10% O ₂	

68. The Batch Digesters (SN-59) are subject to and shall comply with all applicable provisions of 40 CFR Part 60 Subpart A General Provisions and Subpart BB Standards of Performance for Kraft Pulp and Paper Mills because the equipment was constructed or modified after September 24, 1976.

A copy of Subpart BB is provided in Appendix C. Applicable provisions of Subpart BB include, but are not limited to, the following:

- A. Pursuant to 40 CFR §60.283(a)(1), the permittee shall not cause to be discharged into the atmosphere from the digester system any gases which contain TRS in excess of 5 ppm by volume on a dry basis, corrected to 10 percent oxygen, unless the conditions of 40 CFR §60.283(a)(1)(i)-(vi) are met.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

- B. Pursuant to 40 CFR §60.284(a)(2), the permittee shall install, calibrate, maintain, and operate a continuous monitoring system to monitor and record the concentration of TRS emissions on a dry basis and the percent of oxygen by volume on a dry basis in the gases discharged into the atmosphere from the digester system, except where the provisions of 40 CFR §60.283(a)(1)(iii) or (iv) apply. This system shall be located downstream of the control device and the span shall be set at a TRS concentration of 30 ppm for the TRS continuous monitoring system and at 20 percent oxygen for the continuous oxygen monitoring system.
 - C. Pursuant to 40 CFR §284(c)(1), except where the provisions of 40 CFR §60.283(a)(1)(iv) or (a)(4) apply, the permittee shall calculate and record on a daily basis 12-hour average TRS concentrations for the two consecutive periods of each operating day. Each 12-hour average shall be determined as the arithmetic mean of the appropriate 12 contiguous 1-hour average total reduced sulfur concentrations provided by each continuous monitoring system installed under paragraph (a)(2) of this section.
 - D. Pursuant to 40 CFR §60.284(d), for the purpose of reports required under 40 CFR §60.7(c), the permittee shall report semiannually periods of excess emissions.
 - E. Pursuant to 40 CFR §60.285(a), in conducting the performance tests required in 40 CFR §60.8, the permittee shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures in this section, except as provided in 40 CFR §60.8(b). Acceptable alternative methods and procedures are given in paragraph (f) of this section.
69. Pursuant to §19.801 et seq of Regulation #19, all non-condensable gases shall be routed to efficient incineration at the Lime Kiln, the 9A Boiler, or the Incinerator. Once the new Incinerator (SN-83) is operational, the Incinerator will be the primary incineration device for NCGs.
70. Pursuant to §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, the permittee shall not process in excess of 8,592 tons of wood chips per day (30 day rolling average).
71. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall maintain records which demonstrate compliance with the limits specified in Specific Condition #70. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.

Georgia-Pacific Corporation - Crossett Paper Operations**Permit #: 597-AOP-R3****CSN #: 02-0013****SN-33, 34, 60 and 61****Pulp Mill Operations****Source Description**

When the pulp and black liquor exit the blow tank the pulp goes through several processing steps before it is stored in the unbleached high density storage chest. First, knots are removed prior to washing. The knots are recovered and used as woodwaste fuel. Second, the pulp is washed to separate the pulp from the spent cooking chemicals, the black liquor. There are two horizontal washers. There are no emissions directly from the Line 1 Washer (SN-33). The emissions from the associated black liquor storage tank are routed to the Lime Kiln scrubber. Once the Incinerator is installed, the emissions from this black liquor tank will be routed to the Incinerator. The Line 2 Washer (SN-34) is not equipped with any control equipment. Next, the pulp passes through the decker system. The decker system (SN-60 and 61) thickens the pulp for storage in the high density storage chests. Although the operations at the pulp mill are in parallel, the two lines are run separately.

Specific Conditions

72. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Condition #70.

SN	Description	Pollutant	lb/hr	ton/yr
33	Line 1 Washer	no emissions directly from this unit emissions from the associated black liquor storage tank are routed to the lime kiln scrubber when the incinerator is installed emissions will be routed to the incinerator		
34	Line 2 Washer	VOC TRS	21.1 1.3	92.1 5.4
60	Line 1 Decker	VOC	4.7	19.9
61	Line 2 Decker	VOC TRS	3.6 0.61	15.6 2.7

Georgia-Pacific Corporation - Crossett Paper Operations**Permit #: 597-AOP-R3****CSN #: 02-0013**

73. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee estimates the emission rates set forth in the following table will not be exceeded. The pollutant emission rates are effectively limited by Specific Condition #70.

SN	Description	Pollutant	lb/hr	ton/yr
34	Line 2 Washer	Acetone	0.2	0.6
		Acrolein	0.1	0.1
		Methanol	1.3	5.7
		Terpenes	0.1	0.2
60	Line 1 Decker	Acetone	0.1	0.3
		Formaldehyde	0.7	2.9
		Methanol	2.0	8.7
		Terpenes	1.3	5.4
		1,2,4-Trichlorobenzene	0.7	2.9
61	Line 2 Decker	Acetaldehyde	0.3	1.1
		Acetone	0.5	1.9
		Acrolein	0.1	0.1
		Carbon Tetrachloride	0.1	0.2
		Methanol	0.8	3.2

74. The Line 1 Washer (SN-33) and the Line 2 Decker (SN-61) are subject to and shall comply with all applicable provisions of 40 CFR Part 60 Subpart A General Provisions and Subpart BB Standards of Performance for Kraft Pulp and Paper Mills because the equipment was constructed or modified after September 24, 1976.

A copy of Subpart BB is provided in Appendix C. See also Compliance Plan on page 137. Applicable provisions of Subpart BB include, but are not limited to, the following:

- A. Pursuant to 40 CFR §60.283(a)(1), the permittee shall not cause to be discharged into the atmosphere from SN-33 and SN-61 any gases which contain TRS in excess of 5 ppm by volume on a dry basis, corrected to 10 percent oxygen, unless the conditions of 40 CFR §60.283(a)(1)(i)-(vi) are met.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

- B. Pursuant to 40 CFR §60.284(a)(2), the permittee shall install, calibrate, maintain, and operate a continuous monitoring system to monitor and record the concentration of TRS emissions on a dry basis and the percent of oxygen by volume on a dry basis in the gases discharged into the atmosphere from SN-33 and SN-61, except where the provisions of 40 CFR §60.283(a)(1)(iii) or (iv) apply. This system shall be located downstream of the control device and the span shall be set at a TRS concentration of 30 ppm for the TRS continuous monitoring system and at 20 percent oxygen for the continuous oxygen monitoring system.
- C. Pursuant to 40 CFR §284(c)(1), except where the provisions of 40 CFR §60.283(a)(1)(iv) or (a)(4) apply, the permittee shall calculate and record on a daily basis 12-hour average TRS concentrations for the two consecutive periods of each operating day. Each 12-hour average shall be determined as the arithmetic mean of the appropriate 12 contiguous 1-hour average total reduced sulfur concentrations provided by each continuous monitoring system installed under paragraph (a)(2) of this section.
- D. Pursuant to 40 CFR §60.284(d), for the purpose of reports required under 40 CFR §60.7(c), the permittee shall report semiannually periods of excess emissions. The applicant must also report the nature and cause of the excess emissions in accordance with 40 CFR §60.7(c)(2).
- E. Pursuant to 40 CFR §60.285(a), in conducting the performance tests required in 40 CFR §60.8, the permittee shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures in this section, except as provided in 40 CFR §60.8(b). Acceptable alternative methods and procedures are given in paragraph (f) of this section.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN-30
Bleach Plant

Source Description

The unbleached Kraft pulp is taken from the high density storage chest for further processing in the bleach plant. The bleaching process removes lignin and Kraft color from the unbleached pulp.

Bleaching is performed in several stages using chlorine/chlorine dioxide, caustic soda, oxygen, acid, hydrogen peroxide, and other non-chlorine bleaching aids. Chlorine dioxide is generated using sodium chlorate, methanol and sulfuric acid. The chlorine dioxide gas that is produced is absorbed in chilled water and sent to storage for further use in the bleaching operations.

The bleach plant uses a scrubber (SN-30) to control chlorine/chlorine dioxide emissions. All equipment in the bleach plant is either pressurized or is kept under negative pressure and connected to the scrubbing system. The Bleach Plant scrubber is a venturi/separator/packed tower system.

Bleach Plant Modifications

Carbon Monoxide Emissions: Due to a lack of industry or regulatory information suggesting otherwise, carbon monoxide emissions from the bleach plant were not included in the initial permit. Specific Condition #73 of that permit required Georgia-Pacific to test for carbon monoxide emissions from SN-30. The required stack testing was performed on September 24, 1997. Emission rates were derived from the stack tests and were added to the permit.

Cluster Rule Requirements: Currently, the Mill uses a combination of chlorine dioxide (ClO_2), elemental chlorine (Cl_2), hypochlorite, and non-chlorinated bleaching agents to bleach pulp. To satisfy the Cluster Rule requirements, Crossett Paper Operations is currently phasing out Cl_2 and hypochlorite usage and by the Cluster Rule compliance date will be using only ClO_2 and non-chlorinated bleaching agents. The Cluster Rule deadline for becoming elemental chlorine free (ECF) is April 16, 2001. In the interim, the amount of ClO_2 substitution will increase as upgrades are made to the Bleach Plant.

To accommodate ECF bleaching, Crossett Paper Operations will install an additional 4th stage bleaching tower/washer combination on both hardwood bleaching lines in the Bleach Plant. The new towers and washers will use less applied chlorinated compounds, yet maintain the bleaching strength required to maintain product quality standards. The new stages, as well as the existing equipment that handles the application of chlorinated compounds, will be connected in a closed-vent system. All HAP emissions will be routed to the caustic Bleach Plant scrubber. Crossett Paper Operations will gradually phase out the use of Cl_2 and hypochlorite as bleaching agents.

Georgia-Pacific Corporation - Crossett Paper Operations

Permit #: 597-AOP-R3

CSN #: 02-0013

Instead, the Mill will upgrade the ClO₂ generation system as they prepare to attain 100% ClO₂ substitution by April 16, 2001. Furthermore, the Mill will install a new chiller, add additional ClO₂ storage capacity, add an acid dilution delivery system for pH control, and add a stock spill collection tank. The additional equipment will not increase the emissions or the pulp throughput limits.

Specific Conditions

75. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Condition #77.

Pollutant	lb/hr	ton/yr
VOC	13.0	56.6
CO	80.7	353.5

76. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the pollutant emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Condition #77.

Pollutant	lb/hr	ton/yr
Acetone	0.1	0.3
Chlorine	8.0	35.0
Chloroform	12.0	52.6
ClO ₂	4.7	20.5
Methanol	0.9	3.8
Terpenes	0.1	0.2

77. Pursuant to §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, the permittee shall not produce in excess of 2,100 air dried tons of bleached pulp per day (30 day rolling average).

Georgia-Pacific Corporation - Crossett Paper Operations

Permit #: 597-AOP-R3

CSN #: 02-0013

78. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall maintain records which demonstrate compliance with the limits listed in Specific Condition #77. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.
79. Pursuant to §18.1002 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall annually determine emissions of chlorine, chlorine dioxide and chloroform using NCASI Methods TB 520 and TB 531 or an alternative method approved by the Air Division. Records of emission tests shall be kept on site, provided to Department personnel upon request and may be used for enforcement purposes. The annual total shall be submitted in accordance with General Provision #7. During the test the permittee shall operate the plant within 10 percent of the rated throughput capacity. If 90 percent of the rated throughput capacity can not be achieved, the permittee shall be limited to 11 percent above the actual tested throughput.
80. Pursuant to §19.702 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall annually test for carbon monoxide emissions from the Bleach Plant Scrubber (SN-30). Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 10 as found in 40 CFR Appendix A. During the test the permittee shall operate the plant within 10 percent of the rated throughput capacity. If 90 percent of the rated throughput capacity can not be achieved, the permittee shall be limited to 11 percent above the actual tested throughput.
81. Pursuant to §18.1104 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the scrubber shall be kept in good working condition at all times and shall meet the conditions shown in the following table. The scrubber liquid flow rate shall be measured daily. The results shall be kept on site and be available to Department personnel upon request.

SN	Control Equipment	Parameter	Units	Minimum Operating Limits
30	scrubber	recirculation liquid flow rate	gal/min	50

Georgia-Pacific Corporation - Crossett Paper Operations

Permit #: 597-AOP-R3

CSN #: 02-0013

Cluster Rule

82. The Bleach Plant is subject to and shall comply with applicable provisions of 40 CFR Part 63 Subpart A – General Provisions and 40 CFR Part 63 Subpart S – National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry. The Bleach Plant has a compliance date of April 16, 2001. Applicable provisions include, but are not limited to, the following:
- A. Pursuant to 40 CFR §63.445(b), the equipment at each bleaching stage, of the bleaching systems listed in paragraph (a) of 40 CFR §63.445, where chlorinated compounds are introduced shall be enclosed and vented into a closed-vent system and routed to a control device that meets the requirements specified in paragraph (c) of 40 CFR §63.445. The enclosures and closed-vent system shall meet the requirements specified in 40 CFR §63.450.
 - B. Pursuant to 40 CFR §63.445(c)(3), the control device used to reduce chlorinated HAP emission (not including chloroform) from the equipment specified in paragraph (b) of 40 CFR §63.445, the permittee shall comply with the emissions limitations required for bleaching systems by one of the following methods 1) achieving a 99% reduction efficiency across the scrubber or 2) achieving <10 ppm HAPs or 0.002 lbs/ODTP, measured as chlorine.
 - C. Pursuant to 40 CFR §63.445(d), the owner or operator of each bleaching system subject to paragraph (a)(2) of 40 CFR §63.445 shall comply with paragraph (d)(1) or (d)(2) of 40 CFR §63.445 to reduce chloroform air emissions to the atmosphere, except where the owner or operator of each bleaching system complying with extended compliance under 40 CFR §63.440(d)(3)(ii) shall comply with paragraph (d)(1) of 40 CFR §63.445.
 - D. Pursuant to 40 CFR §63.445(d)(2), use no hypochlorite or elemental chlorine for bleaching in the bleaching system or line.
 - E. The Bleach Plant Scrubber shall meet the monitoring requirements set forth in 40 CFR §63.453(c).

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN-26
8R Recovery Furnace

Source Description

Recovery is the set of operations that recover spent cooking chemicals for reuse in the digesters. The recovery process uses a multi-effect evaporator to concentrate weak black liquor. Concentrated black liquor is burned in the 8R Recovery Furnace (SN-26) to recover spent chemicals, the inorganic chemicals that are necessary for pulp making. Auxiliary fuels, such as oil, may be used by the furnace for startup or to augment liquor combustion. Exhaust gases from the recovery furnace are treated in an electrostatic wet bottom precipitator. The spent chemicals leave the recovery furnace in a molten form and enter the smelt dissolving tanks.

Evaporation and concentration operations remove water from the black liquor in order to facilitate combustion in the recovery furnace. The solids in the liquor are generated from the digester and washing filtrates. The evaporators convert the weak black liquor to strong (heavy) black liquor.

There are six effects in the evaporator train at the mill, each effect operating at a different pressure. Plant steam flows countercurrent to the black liquor through the evaporators. Combined condensate from the evaporator is used in washing and recausticizing. A Low Energy Environmental Pre-evaporator and Stripper (LEEPS) system will be added to the evaporator system to treat the foul (or strip) condensates produced in the evaporation process. The LEEPS system will also treat foul condensates generated from the pulping process. The clean water produced will be re-used for pulp washing. The stripped condensate (methanol) will be routed to the incinerator as a liquid for destruction. The stripper overhead gases (SOGs) will be routed to the incinerator for destruction, or as a backup, to the No. 4 Lime Kiln or the 9A Boiler.

Black liquor of varying concentration is stored in above ground storage tanks. There are two large weak black liquor tanks and one weak black liquor storage basin (approximately 4 acres, SN-76F). In addition, there are two strong black liquor tanks and two concentrated strong black liquor holding tanks. There are also seven multiple service tanks that may store black liquor. There are also additional, smaller black liquor storage tanks.

The concentrated black liquor is burned in the 8R Recovery Furnace with the heat being used to produce steam and electricity. Flue gas from the furnace is sent through an economizer followed by an electrostatic precipitator (ESP). The ESP is used to control particulate matter emissions. The 8R Recovery Furnace was installed in 1981. It is subject to regulation under NSPS Subpart BB. The NO_x emissions from the furnace are also regulated under PSD.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

Specific Conditions

83. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Conditions #92, #93 and #95.

Pollutant	lb/hr	ton/yr
SO ₂	300.0	1314.0
VOC	39.4	172.5
CO	3750.0	16425.0
Pb	0.01	0.04

84. Pursuant to §19.501 et seq and §19.901 et seq of Regulation #19, and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Conditions #92, #93 and #98.

Pollutant	lb/hr	ton/yr
NO _x	190.0	832.2
	110 ppm _{dv} @ 8% O ₂	

85. Pursuant to §19.304 and §19.501 et seq of Regulation #19, 40 CFR Part 52 Subpart E, and 40 CFR §60.282, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Conditions #92, #93 and #97.

Pollutant	lb/hr	ton/yr
PM PM ₁₀	93.0	407.3
	0.044 gr/dscf @ 8% O ₂	

86. Pursuant to §19.304, §19.501 et seq, and §19.801 et seq of Regulation #19; 40 CFR Part 52 Subpart E; and 40 CFR §60.283, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Conditions #92 and #102.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

Pollutant	lb/hr	ton/yr
TRS	9.0	39.4
	5 ppm @ 8% O ₂	

87. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Conditions #92 and #93.

Pollutant	lb/hr	ton/yr
Acetaldehyde	0.5	2.0
Arsenic	0.1	0.1
Cadmium	0.1	0.1
Methanol	2.2	9.4
Sulfuric Acid	6.0	26.3

88. Pursuant to §19.304 of Regulation #19 and 40 CFR §60.282, the permittee shall not cause to be discharged to the atmosphere from the 8R Recovery Furnace gases which exhibit an opacity greater than 35%. The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Part 60 Appendix A. Compliance shall be demonstrated by the use of the Recovery Boiler continuous opacity monitor. This limit is superseded by Specific Condition #88.
89. Pursuant to §19.503 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not cause to be discharged to the atmosphere from the 8R Recovery Furnace gases which exhibit an opacity greater than 20%. The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Part 60 Appendix A. Compliance shall be demonstrated by the use of the Recovery Boiler continuous opacity monitor.
90. The 8R Recovery Furnace (SN-26) is subject to and shall comply with all applicable provisions of 40 CFR Part 60 Subpart A General Provisions and 40 CFR Part 60 Subpart BB Standards of Performance for Kraft Pulp and Paper Mills due to the fact it was constructed or modified after September 24, 1976.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

A copy of Subpart BB is provided in Appendix C. Applicable provisions of Subpart BB include, but are not limited to, the following:

- A. Pursuant to 40 CFR §60.282(a)(1)(i), the permittee shall not cause to be discharged into the atmosphere from the recovery furnace gases which contain particulate matter in excess of 0.044 gr/dscf corrected to 8 percent oxygen.
- B. Pursuant to 40 CFR §60.282(a)(1)(ii), the permittee shall not cause to be discharged into the atmosphere from the recovery furnace gases which exhibit 35 percent opacity or greater.
- C. Pursuant to 40 CFR §60.283(a)(2), the permittee shall not cause to be discharged into the atmosphere from the recovery furnace gases which contain TRS in excess of 5 ppm by volume on a dry basis, corrected to 8 percent oxygen.
- D. Pursuant to 40 CFR §60.284(a)(2), the permittee shall install, calibrate, maintain, and operate continuous monitoring systems to monitor and record the concentration of TRS emissions on a dry basis and the percent of oxygen by volume on a dry basis in the gases discharged into the atmosphere from the recovery furnace. This system shall be located downstream of the control device and the span shall be set at a TRS concentration of 50 ppm for the TRS continuous monitoring system and at 20 percent oxygen for the continuous oxygen monitoring system.
- E. Pursuant to 40 CFR §60.284(c)(1), the permittee shall calculate and record on a daily basis 12-hour average TRS concentrations for the two consecutive periods of each operating day. Each 12-hour average shall be determined as the arithmetic mean of the appropriate 12 contiguous 1-hour average total reduced sulfur concentrations provided by each continuous monitoring system installed under paragraph (a)(2) of this section.
- F. Pursuant to 40 CFR §60.284(c)(2), the permittee shall calculate and record on a daily basis 12-hour average oxygen concentrations for the two consecutive periods of each operating day for the recovery furnace. These 12-hour averages shall correspond to the 12-hour average TRS concentrations under paragraph (c)(1) of this section and shall be determined as an arithmetic mean of the appropriate 12 contiguous 1-hour average oxygen concentrations provided by each continuous monitoring system installed under paragraph (a)(2) of this section.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

- G. Pursuant to 40 CFR §60.284(d), for the purpose of reports required under 40 CFR §60.7(c), the permittee shall report semiannually periods of excess emissions.
- H. Pursuant to 40 CFR §60.285(a), in conducting the performance tests required in 40 CFR §60.8, the permittee shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures in this section, except as provided in 40 CFR §60.8(b). Acceptable alternative methods and procedures are given in paragraph (f) of this section.
91. In accordance with §19.304 of Regulation #19, 40 CFR §60.7(c), and 40 CFR §60.284, the permittee shall continue to quarterly submit excess emission reports to the following address:
- Arkansas Department of Environmental Quality
Air Division
Attn: Air Enforcement Branch
Post Office Box 8913
Little Rock, Arkansas 72119
92. Pursuant to §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, the permittee shall not fire in excess of 1.04 million tons of black liquor solids to the recovery furnace per twelve consecutive months.
93. Pursuant to §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, specification grade oil may be used as fuel in the 8R Recovery Furnace (SN-26).
94. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall maintain records which demonstrate compliance with Specific Conditions #92 and #93. These records shall be updated monthly, kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each month's individual data shall be submitted to the Department in accordance with General Provision #7.
95. Pursuant to §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, the sulfur content of the specification grade oil shall not exceed 1% by weight.
96. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, the sulfur content of the specification grade oil shall be verified by testing or vendors' guarantees. The

Georgia-Pacific Corporation - Crossett Paper Operations

Permit #: 597-AOP-R3

CSN #: 02-0013

permittee shall maintain a record of each fuel shipment and the associated sulfur content. This record shall be updated with each shipment, kept on site, shall be made available to Department personnel upon request and may be used by the Department for enforcement purposes.

97. Pursuant to §19.702 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall annually test particulate matter emissions from the 8R Recovery Furnace (SN-26). The testing for calendar year 1999 shall be completed on or before December 31, 1999, and annually thereafter. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 5 as found in 40 CFR Part 60 Appendix A. During the test the permittee shall operate the source within 10 percent of the rated throughput capacity. If 90 percent of the rated throughput capacity can not be achieved, the permittee shall be limited to 11 percent above the actual tested throughput.
98. Pursuant to §19.702 and §19.901 et seq of Regulation #19, and 40 CFR Part 52 Subpart E, the permittee shall continue to perform annual testing of the hourly NO_x emissions rate on the 8R Recovery Furnace (SN-26) for compliance and enforcement purposes. The testing for calendar year 1999 shall be completed on or before December 31, 1999, and annually thereafter. Compliance with the NO_x limit will be based on the average of three one hour tests. A three hour average within compliance that contains a one hour test above the limit will not be considered as a violation of the permit. A three hour average within compliance that contains two one hour tests above the limit will be considered a violation of the permit. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 7E as found in 40 CFR Part 60 Appendix A. During the test the permittee shall operate the source within 10 percent of the rated throughput capacity. If 90 percent of the rated throughput capacity can not be achieved, the permittee shall be limited to 11 percent above the actual tested throughput.
99. Pursuant to §19.304 and §19.703 of Regulation #19, 40 CFR Part 52 Subpart E, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §60.284, the permittee shall continue to operate and maintain opacity, TRS and O₂ continuous emission monitors at the 8R Recovery Furnace (SN-26).
100. Pursuant to §19.703 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the continuous emission monitors at the 8R Recovery Furnace shall be operated in accordance with the Department Continuous Emission Monitoring Systems Conditions (Appendix A) and the applicable Performance Standards of 40 CFR Part 60 Appendix B.

Georgia-Pacific Corporation - Crossett Paper Operations

Permit #: 597-AOP-R3

CSN #: 02-0013

101. Pursuant to §19.703 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, all continuous monitoring data may, at the discretion of the Department, be used to determine violations of the emissions limits or conditions of this permit.
102. Pursuant to §19.304 and §19.801 et seq of Regulation #19, 40 CFR §60.283, and 40 CFR §60.284, the TRS concentration of gases leaving the 8R Recovery Furnace (SN-26) shall not exceed 5 ppm, measured as H₂S on a dry basis and on a 12 hour average, corrected to 8% volume oxygen. The permittee shall continue to operate and maintain CEMs which record the TRS concentration of gases leaving the 8R Recovery Furnace (SN-26). The TRS monitors shall be operated in accordance with the requirements of 40 CFR §60.284 (date of installation notwithstanding) and the Department Continuous Emission Monitoring Systems Conditions (Appendix A).

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN-27A and 27B
Smelt Dissolving Tanks

Source Description

The combusted black liquor generates molten salts that are drained from the bottom of the 8R Recovery Furnace into one of two smelt dissolving tanks (SN-27A and SN-27B) on either side of the 8R Recovery Furnace. The smelt dissolving tanks cool the molten salts in large water tanks. Each smelt dissolving tank has an independent stack that is routed through a wet scrubber. The smelt dissolving tanks are subject to NSPS Subpart BB.

Specific Conditions

103. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Condition #92.

SN	Description	Pollutant	lb/hr	ton/yr
27A	Smelt Dissolving Tank (East)	SO ₂	3.0	13.2
		VOC	18.5	80.7
		NO _x	2.0	8.5
27B	Smelt Dissolving Tank (West)	SO ₂	3.0	13.2
		VOC	18.5	80.7
		NO _x	2.0	8.5

104. Pursuant to §19.304 and §19.501 et seq of Regulation #19, 40 CFR Part 52 Subpart E, and 40 CFR §60.282, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Condition #92 and #?, 111.

SN	Description	Pollutant	lb/hr	ton/yr
27A	Smelt Dissolving Tank (East)	PM PM ₁₀	10.0	43.8
			0.2 lb PM/PM ₁₀ per ton of black liquor solids(TBLS)	

Georgia-Pacific Corporation - Crossett Paper Operations**Permit #: 597-AOP-R3****CSN #: 02-0013**

SN	Description	Pollutant	lb/hr	ton/yr
27B	Smelt Dissolving Tank (West)	PM PM ₁₀	10.0	43.8
			0.2 lb PM/PM ₁₀ per ton of black liquor solids (TBLS)	

105. Pursuant to §19.304, §19.501 et seq, and §19.801 et seq of Regulation #19; 40 CFR Part 52 Subpart E; and 40 CFR §60.283, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Condition #92 and #112.

SN	Description	Pollutant	lb/hr	ton/yr
27A	Smelt Dissolving Tank (East)	TRS	2.2	9.5
			0.016 g TRS per kg of black liquor solids (0.033 lb/TBLS) as H ₂ S	
27B	Smelt Dissolving Tank (West)	TRS	2.2	9.5
			0.016 g TRS per kg of black liquor solids (0.033 lb/TBLS) as H ₂ S	

106. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Condition #92.

SN	Description	Pollutant	lb/hr	ton/yr
27A	Smelt Dissolving Tank (East)	Acetone	0.1	0.1
		Methanol	18.5	80.7
27B	Smelt Dissolving Tank (West)	Acetone	0.1	0.1
		Methanol	18.5	80.7

107. Pursuant to §19.503 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not cause to be discharged from the Smelt Dissolving Tanks (SN-27A and 27B) gases which exhibit an opacity greater than 20%. Compliance with this opacity limit shall be

Georgia-Pacific Corporation - Crossett Paper Operations

Permit #: 597-AOP-R3

CSN #: 02-0013

demonstrated by compliance with Specific Condition #108. The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Part 60 Appendix A.

108. Pursuant to §19.303 of Regulation #19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the scrubbers shall be kept in good working condition at all times and shall meet the conditions shown in the following table. The scrubber liquid flow rate and the gas pressure drop across the units shall be measured daily. The results shall be kept on site and be available to the Department personnel upon request.

SN	Control Equipment	Parameter	Units	Operation Limits (minimum)
27A	scrubber	liquid flow rate, top	gal/min	35
		liquid flow rate, bottom	gal/min	100
		gas pressure drop across unit	inches, H ₂ O	5
27B	scrubber	liquid flow rate, top	gal/min	35
		liquid flow rate, bottom	gal/min	100
		gas pressure drop across unit	inches, H ₂ O	5

109. The Smelt Dissolving Tanks (SN-27A and 27B) are subject to and shall comply with all applicable provisions of 40 CFR Part 60 Subpart A General Provisions and 40 CFR Part 60 Subpart BB Standards of Performance for Kraft Pulp Mills due to the fact that they were constructed or modified after September 24, 1976.

A copy of Subpart BB is provided in Appendix C. Applicable provisions of Subpart BB include, but are not limited to, the following:

- A. Pursuant to 40 CFR §60.282(a)(2), the permittee shall not cause to be discharged into the atmosphere from the smelt dissolving tanks any gases which contain particulate matter in excess of 0.2 lb/ton black liquor solids (dry weight).
- B. Pursuant to 40 CFR §60.283(a)(4), the permittee shall not cause to be discharged into the atmosphere from the smelt dissolving tanks any gases which contain TRS in excess of 0.033 lb/ton black liquor solids as H₂S.

Georgia-Pacific Corporation - Crossett Paper Operations

Permit #: 597-AOP-R3

CSN #: 02-0013

- C. Pursuant to 40 CFR §60.284(b)(2), the permittee shall install, calibrate, maintain, and operate a continuous monitoring devices for the smelt dissolving tanks because they use a scrubber emission control device.
 - D. Pursuant to 40 CFR §60.284(d), for the purpose of reports required under 40 CFR §60.7(c), the permittee shall report semiannually periods of excess emissions.
 - E. Pursuant to 40 CFR §60.285(a), in conducting the performance tests required in 40 CFR §60.8, the permittee shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures in this section, except as provided in 40 CFR §60.8(b). Acceptable alternative methods and procedures are given in paragraph (f) of this section.
110. Pursuant to §19.304 and §19.703 of Regulation #19, 40 CFR Part 52 Subpart E, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §60.284, the permittee shall continue to operate and maintain a monitoring device for the continuous measurement of the differential pressure drop across the scrubber.
111. Pursuant to §19.702 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall annually test particulate matter emissions from the Smelt Dissolving Tanks (SN-27A and 27B). The testing for calendar year 1999 shall be completed on or before December 31, 1999, and annually thereafter. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 5 as found in 40 CFR Part 60 Appendix A. During the test the permittee shall operate the sources within 10 percent of the rated throughput capacity. If 90 percent of the rated throughput capacity can not be achieved, the permittee shall be limited to 11 percent above the actual tested throughput.
112. Pursuant to §19.702 and §19.801 et seq of Regulation #19, and 40 CFR Part 52 Subpart E, the TRS concentration of gases leaving the Smelt Dissolving Tanks (SN-27A and 27B) shall not exceed 0.0168 g TRS per kg of black liquor solids. The permittee shall conduct annual compliance testing of TRS emissions from the Smelt Dissolving Tanks (SN-27A and 27B). Data reduction shall be performed as set forth in 40 CFR 60.8. The testing for calendar year 1999 shall be completed on or before December 31, 1999, and annually thereafter. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 16 as found in 40 CFR Part 60 Appendix A. During the test the permittee shall operate the source within 10 percent of the rated throughput capacity. If 90 percent of the rated throughput capacity can not be achieved, the permittee shall be limited to 11 percent above the actual tested throughput.

SN-25

No. 4 Lime Kiln

Source Description

Georgia-Pacific Corporation - Crossett Paper Operations

Permit #: 597-AOP-R3

CSN #: 02-0013

The causticizing operation reacts molten inorganic salts from the smelt dissolving tanks with weak wash to form green liquor. The slaking process is designed to combine green liquor and burnt lime (CaO). After being mixed with lime in the slakers the green liquor goes through a series of causticizing tanks. These causticizers provide the residence time necessary for the lime to react with the green liquor and form white liquor. White liquor is used as the main cooking liquor in the digester. Calcium carbonate (lime mud) formed in this reaction is calcined in the No. 4 Lime Kiln (SN-25). The calcination process regenerates lime for reuse.

The lime kiln heats calcium carbonate (lime mud) to form calcium oxide (lime product). Fuels used in the lime kiln include specification grade oil and natural gas. Emissions from the lime kiln are controlled by a wet scrubber. Non-condensable gases (NCGs) from processes are routed to the lime kiln for thermal destruction. The lime kiln is subject to NSPS Subpart BB. The maximum firing rate of the lime kiln is 150 million Btu per hour.

NCGs from several pulp mill sources are collected and routed to the lime kiln for combustion. The evaporator vents, digester vents and blow tank condensers are all part of the NCG system at the Crossett Paper Operations. The 9A Boiler is used as the backup unit for burning NCGs.

Reburnt lime product from the lime kiln is conveyed to a lime bin where it is fed into the slaker. The lime handling and storage system includes elevators, conveyors and lime bins. Conveyors transport lime from the storage silos to the slakers. Fresh lime is added to the system from delivery trucks by pneumatic conveyance to the two lime silos.

Specific Conditions

113. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Conditions #121 and #123.

Pollutant	lb/hr	ton/yr
SO ₂	36.8	160.8
VOC	19.4	85.0
CO	625.0	2737.5
NO _x	72.0	186.3
Pb	0.09	0.4

Georgia-Pacific Corporation - Crossett Paper Operations**Permit #: 597-AOP-R3****CSN #: 02-0013**

114. Pursuant to §19.304 and §19.501 et seq of Regulation #19, 40 CFR Part 52 Subpart E, and 40 CFR §60.282, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Condition #121 and #125.

Pollutant	lb/hr	ton/yr
Natural gas or natural gas and specification oil		
PM	27.1	118.7
PM ₁₀	0.067 gr/dscf corrected to 10% oxygen	

115. Pursuant to §19.304, §19.501 et seq, and §19.801 et seq of Regulation #19; 40 CFR Part 52 Subpart E; and 40 CFR §60.283, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Condition #121 and #130.

Pollutant	lb/hr	ton/yr
Scenario #1: Natural gas or natural gas and specification oil firing. Emission limits prior to routing black liquor storage tank associated with SN-33 to the new Incinerator.		
TRS	1.5	6.6
	5 ppm measured as H ₂ S on a dry basis, on a 12-hour average, corrected to 10% O ₂	
Scenario #2: Natural gas or natural gas and specification oil firing. Emission limits when emissions from the black liquor storage tank associated with SN-33 are routed to the new Incinerator.		
TRS	1.5	6.6
	8 ppm measured as H ₂ S on a dry basis, on a 12-hour average, corrected to 10% O ₂	

116. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Condition #121.

Pollutant	lb/hr	ton/yr
Cadmium	0.1	0.1

Georgia-Pacific Corporation - Crossett Paper Operations

Permit #: 597-AOP-R3

CSN #: 02-0013

Pollutant	lb/hr	ton/yr
Mercury	0.1	0.1
Nickel	0.1	0.2

117. Pursuant to §19.503 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not cause to be discharged to the atmosphere gases which exhibit an opacity greater than 20%. Compliance with this opacity limit shall be demonstrated by compliance with Specific Condition #117. The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Part 60 Appendix A.
118. Pursuant to §19.303 of Regulation #19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the scrubbers shall be kept in good working condition at all times and shall meet the conditions shown in the following table. The scrubber liquid flow rate and the gas pressure drop across the units shall be measured daily. The results shall be kept on site and be available to the Department personnel upon request.

SN	Control Equipment	Parameter	Units	Operation Limits (minimum)
25	scrubber	liquid flow rate	gal/min	500
		gas pressure drop across unit	inches, H ₂ O	25

119. The No. 4 Lime Kiln (SN-25) is subject to and shall comply with all applicable provisions of 40 CFR Part 60 Subpart A General Provisions and 40 CFR Part 60 Subpart BB Standards of Performance for Kraft Pulp Mills due to the fact it was constructed or modified after September 24, 1976.

A copy of Subpart BB is provided in Appendix C. Applicable provisions of Subpart BB include, but are not limited to, the following:

- A. Pursuant to 40 CFR §60.282(a)(2), the permittee shall not cause to be discharged into the atmosphere from the lime kiln any gases which contain particulate matter in excess of 0.067 gr/dscf corrected to 10 percent oxygen, when gaseous fossil fuel is burned.
- B. Pursuant to 40 CFR §60.283(a)(5), the permittee shall not cause to be discharged into the atmosphere from the lime kiln gases which contain TRS in excess of 8 ppm by volume on a dry basis, corrected to 10 percent oxygen.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

- C. Pursuant to 40 CFR §60.284(a)(2), the permittee shall install, calibrate, maintain, and operate continuous monitoring systems to monitor and record the concentration of TRS emissions on a dry basis and the percent of oxygen by volume on a dry basis in the gases discharged into the atmosphere from the lime kiln. This system shall be located downstream of the control device and the span shall be set at a TRS concentration of 30 ppm for the TRS continuous monitoring system and at 20 percent oxygen for the continuous oxygen monitoring system.
 - D. Pursuant to 40 CFR §60.284(b)(2), the permittee shall install, calibrate, maintain, and operate continuous monitoring devices for the lime kiln because it uses a scrubber emission control device.
 - E. Pursuant to 40 CFR §60.284(c)(1), the permittee shall calculate and record on a daily basis 12-hour average TRS concentrations for the two consecutive periods of each operating day. Each 12-hour average shall be determined as the arithmetic mean of the appropriate 12 contiguous 1-hour average total reduced sulfur concentrations provided by each continuous monitoring system installed under paragraph (a)(2) of this section.
 - F. Pursuant to 40 CFR §60.284(c)(2), the permittee shall calculate and record on a daily basis 12-hour average oxygen concentrations for the two consecutive periods of each operating day for the lime kiln. These 12-hour averages shall correspond to the 12-hour average TRS concentrations under paragraph (c)(1) of this section and shall be determined as an arithmetic mean of the appropriate 12 contiguous 1-hour average oxygen concentrations provided by each continuous monitoring system installed under paragraph (a)(2) of this section.
 - G. Pursuant to 40 CFR §60.284(d), for the purpose of reports required under 40 CFR §60.7(c), the permittee shall report semiannually periods of excess emissions.
 - H. Pursuant to 40 CFR §60.285(a), in conducting the performance tests required in 40 CFR §60.8, the permittee shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures in this section, except as provided in 40 CFR §60.8(b). Acceptable alternative methods and procedures are given in paragraph (f) of this section.
120. In accordance with §19.304 of Regulation #19, 40 CFR §60.7(c), and 40 CFR §60.284, the permittee shall continue to quarterly submit excess emission reports to the following address:

Arkansas Department of Environmental Quality

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

Air Division
Attn: Air Enforcement Branch
Post Office Box 8913
Little Rock, Arkansas 72119

121. Pursuant to §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, either natural gas or natural gas and specification oil may be used as fuel in the No. 4 Lime Kiln.
122. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall maintain records which demonstrate compliance with Specific Condition #121. These records shall updated monthly, be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. The monthly records shall include periods of usage for each type (not quantities) of fuel used. A twelve month total and each month's individual data shall be submitted to the Department in accordance with General Provision #7.
123. Pursuant to §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, the sulfur content of the specification grade oil shall not exceed 1% by weight.
124. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, the sulfur content of the specification grade oil shall be verified by testing or vendors' guarantees. The permittee shall maintain a record of each fuel shipment and the associated sulfur content. This record shall be updated with each shipment, kept on site, shall be made available to Department personnel upon request and may be used by the Department for enforcement purposes.
125. Pursuant to §19.702 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall annually test particulate matter emissions from the No. 4 Lime Kiln (SN-25). The testing for calendar year 1999 shall be completed on or before December 31, 1999, and annually thereafter. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 5 as found in 40 CFR Part 60 Appendix A. During the test the permittee shall operate the source within 10 percent of the rated throughput capacity. If 90 percent of the rated throughout capacity can not be achieved, the permittee shall be limited to 11 percent above the actual tested throughput.
126. Pursuant to §19.304 and §19.703 of Regulation #19, 40 CFR Part 52 Subpart E, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §60.284, the permittee shall continue to operate and maintain for the No. 4 Lime Kiln a continuous monitoring system

Georgia-Pacific Corporation - Crossett Paper Operations

Permit #: 597-AOP-R3

CSN #: 02-0013

to monitor and record TRS concentration on a dry basis, percent of O₂ by volume on a dry basis, pressure drop across the scrubber and liquid supply pressure.

127. Pursuant to §19.703 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the continuous emission monitors at the No. 4 Lime Kiln shall be operated in accordance with the Department Continuous Emission Monitoring Systems Conditions (Appendix A) and the applicable Performance Standards of 40 CFR Part 60 Appendix B.
128. Pursuant to §19.703 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, all continuous monitoring data may, at the discretion of the Department, be used to determine violations of the emissions limits or conditions of this permit.
129. Pursuant to §19.801 et seq of Regulation #19, the permittee shall route all non-condensable gases to efficient incineration at the No. 4 Lime Kiln, the 9A Boiler, or the Incinerator. When the new Incinerator (SN-83) is operational, the No. 4 Lime Kiln will become a backup incineration device like the 9A Boiler.
130. Pursuant to §19.304, §19.501 et seq, and §19.801 et seq of Regulation #19; 40 CFR §60.283; and 40 CFR §60.284, the TRS concentration of gases leaving the No. 4 Lime Kiln (SN-25) shall not exceed 5 ppm, measured as H₂S on a dry basis and on a 12 hour average, corrected to 10% volume oxygen. The permittee shall continue to operate and maintain CEMs which record the TRS concentration of gases leaving the No. 4 Lime Kiln (SN-25). The TRS monitors shall be operated in accordance with the requirements of 40 CFR §60.284 (date of installation notwithstanding) and the Department Continuous Emission Monitoring Systems Conditions (Appendix A).

Once the emissions from the black liquor storage tank associated with the Line 1 Washer (SN-33) has been routed to the new Incinerator, the maximum allowable emission rate for the Lime Kiln (SN-25) shall be 8 ppm on a 12-hour average, corrected to 10% O₂.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN-62 and 63
Fine Paper Machines No. 1 and No. 2

Source Description

Communication paper is made on the two fine paper machines (No. 1 and 2 Fine Paper Machines). Each machine includes its own stock preparation, head box, wire section, press section, dryer sections, coater section, calendar stacks, reel and drum winder. The fine paper machines produce a variety of products, including but not limited to, bond paper, envelope, tablet and copier paper. Emissions from Fine Paper Machine No. 1 (SN-62) occur primarily from the fourdrinier vacuum pump exhausts, press section vents, dryer exhaust and coating section. Fine Paper Machine No. 2 (SN-63) is nearly identical to Fine Paper Machine No. 1.

Specific Conditions

131. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Condition #133.

SN	Description	Pollutant	lb/hr	ton/yr
62	Fine Paper Machine No. 1	VOC	4.9	20.6
63	Fine Paper Machine No. 2	VOC	5.5	22.7

132. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee estimates the emission rates set forth in the following table will not be exceeded. The pollutant emission rates are effectively limited by Specific Condition #133.

SN	Description	Pollutant	lb/hr	ton/yr
62	Fine Paper Machine No. 1	Acetaldehyde	1.0	4.4
		Acetone	0.8	3.4
		Acrolein	0.1	0.2
		1,2 Dichloroethylene	0.1	0.5
		Formaldehyde	0.2	0.6
		Methanol	1.1	4.5
62	Fine Paper Machine No. 1	Terpenes	2.4	10.4

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN	Description	Pollutant	lb/hr	ton/yr
63	Fine Paper Machine No. 2	Acetaldehyde	1.1	4.9
		Acetone	0.9	3.8
		Acrolein	0.1	0.2
		1,2 Dichloroethylene	0.2	0.5
		Formaldehyde	0.2	0.7
		Methanol	1.2	4.9
		Terpenes	2.7	11.5

133. Pursuant to §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, the permittee shall not produce in excess of 1050 machine dried tons of paper per day from the Fine Paper Machines No. 1 and No. 2 combined (30 day rolling average).
134. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall maintain records which demonstrate compliance with the limits listed in Specific Condition #133. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN-64 and 65
Board Machine No. 3

Source Description

The Board Machine No. 3 produces bleached board using the wet end, dry end and broke systems. The board is used primarily as cup stock and liner board for boxes. Emissions from Board Machine No. 3 occur primarily from the vacuum pump exhausts, press section vents, dryer exhausts, coating section and combustion sources in the coating section. Emissions from the wet end, dry end and coating operations of Board Machine No. 3 are bubbled together (SN-64). There are sixteen gas burners (SN-65) with a total heating value of 12.3 million Btu per hour located on the board machine following the coating operations.

Specific Conditions

135. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Conditions #138 and #140.

SN	Description	Pollutant	lb/hr	ton/yr
64	Board Machine No. 3	VOC	8.1	34.6
65	Board Machine No. 3 Burners	PM ₁₀	0.2	0.9
		SO ₂	0.1	0.1
		VOC	0.1	0.2
		CO	0.6	2.3
		NO _x	2.1	9.1

136. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee estimates the emission rates set forth in the following table will not be exceeded. The pollutant emission rates are effectively limited by Specific Conditions #138 and #140.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN	Description	Pollutant	lb/hr	ton/yr
64	Board Machine No. 3	Acetaldehyde	1.7	7.3
		Acetone	1.4	5.9
		Acrolein	0.1	0.3
		Ammonia	2.4	10.5
		1,2 Dichloroethylene	0.2	0.8
		Formaldehyde	0.3	1.0
		Methanol	1.7	7.4
		Terpenes	4.1	17.8
65	Board Machine No. 3 Burners	PM	0.2	0.9

137. Pursuant to §18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not cause to be discharged to the atmosphere from the Board Machine No. 3 Burners (SN-65) gases which exhibit an opacity greater than 5%. The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Part 60 Appendix A. Compliance with this opacity limit shall be demonstrated by the use of natural gas.
138. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, natural gas shall be the only fuel used for the Board Machine No. 3 Burners (SN-65).
139. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records which demonstrate compliance with the limits listed in Specific Condition #138. The records shall be updated on a monthly basis. The monthly record shall include periods of usage for each type (not quantities) of fuel used. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

140. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, the permittee shall not produce in excess of 850 machine dried tons of paper per day (30 day average rolling) from the Board Machine No. 3.
141. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records which demonstrate compliance with the limits listed in Specific Condition #140. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

Tissue Machines No. 4 through No. 9

Source Description

There are currently five tissue machines (Tissue Machines No. 4 through No. 8) at the Georgia-Pacific Crossett Paper Mill which manufacture tissue for conversion into bathroom tissue, towel, facial tissues, and napkins. In addition, the Mill also has an additional three machines that produce communications papers and bleached paperboard.

Pulp is supplied to the five tissue machines in varying proportions depending upon the desired product. The tissue papermaking process involves stock preparation, wet end - fourdrinier, press sections mix tanks and blend tanks, dry end - dryer sections with air hoods, reel and winder, and broke system finishing operations. Pulp stock is made into paper by forming a sheet on a continuously moving wire screen (the fourdrinier); removing water by gravity, vacuum and pressing, and drying with heated rolls. The water removed from the stock is called white water. The white water is collected for reuse in stock preparation or sewerage as wastewater.

The TAD technology is a new technology. The difference between the TAD technology and the conventional technology involves not only the drying section of the paper machine, but covers almost the entire machine. The TAD allows the evaporation of large quantities of water and it imparts optimum quality with high bulk and great softness. In addition, the essential advantage of soft tissue production as compared to the conventional method is that a high bulk tissue quality can be produced with less fiber. The newly installed No. 9 Paper Machine will employ this technique.

The TAD process has an incoming sheet of paper to TAD #1 at 75% wet, being dried by hot air traveling through the sheet, TAD fabric, and TAD dryer. Approximately 80% of the air is recirculated back into the burner chamber for reuse. The TAD #2 units air system operates like TAD #1, exiting at 15% wet. The sheet of paper leaves the TAD fabric at the pressure roll. The TAD fabric is washed and cleaned with water showers and vacuum in a closed loop recirculation system, removing loose fiber particles of various sizes. The sheet of paper leaving the pressure roll nip attaches to the yankee surface which is similar to existing tissue machines in Crossett.

Tissue converting includes the operations involved in converting large parent rolls of tissue from the tissue machines into finished products. This includes rewinding into smaller sized rolls, folding, printing, cutting, packaging and shipping.

Dust in the tissue converting area is controlled using filters with the exhaust air being recycled back into the building. Trim from the converting operations is sent to the repulpers by pneumatic systems. A cyclone removes the trim from the air stream prior to discharging the air through the

Georgia-Pacific Corporation - Crossett Paper Operations

Permit #: 597-AOP-R3

CSN #: 02-0013

roof. Minimal amounts of VOCs may be emitted from the glue that is used to seal boxes, the lubricants used on the machines and the dye used for printing patterns on the material.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN-46, 66 and 67
Tissue Machine No. 4

Emissions from the wet end and dry end of Tissue Machine No. 4 (SN-66) have been bubbled together. The Tissue Machine No. 4 Burners (SN-46) combust natural gas at a total heating rate of 20 million Btu per hour. Tissue Machine No. 4 Dust System (SN-67) uses a 20,000 cfm scrubber to control particulate matter emissions.

Specific Conditions

142. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Conditions #145 and #147.

SN	Description	Pollutant	lb/hr	ton/yr
46	Tissue Machine No. 4 Burners	PM ₁₀	0.4	1.4
		SO ₂	0.1	0.1
		VOC	1.2	4.9
		CO	4.3	18.8
		NO _x	3.4	14.7
66	Tissue Machine No. 4	VOC	1.8	6.7
67	Tissue Machine No. 4 Dust System	PM ₁₀	0.3	1.1

143. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee estimates the emission rates set forth in the following table will not be exceeded. The pollutant emission rates are effectively limited by Specific Conditions #145 and #147.

SN	Description	Pollutant	lb/hr	ton/yr
46	Tissue Machine No. 4 Burners	PM	0.4	1.4
66	Tissue Machine No. 4	Acetaldehyde	0.4	1.6
		Acetone	0.3	1.1

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN	Description	Pollutant	lb/hr	ton/yr
		Acrolein	0.1	0.1
		1,2 Dichloroethylene	0.1	0.2
		Formaldehyde	0.1	0.2
		Methanol	0.3	1.3
		Terpenes	0.8	3.3
67	Tissue Machine No. 4 Dust System	PM	0.3	1.1

144. Pursuant to §18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not cause to be discharged to the atmosphere from SN-46 gases which exhibit an opacity greater than 5%. Compliance with this opacity limit shall be demonstrated by the use of natural gas.

The permittee shall not cause to be discharged to the atmosphere from SN-67 gases which exhibit an opacity greater than 5%. Compliance with this opacity limit shall be demonstrated by the proper operation of the scrubber.

The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Appendix A.

145. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, natural gas shall be the only fuel used for Tissue Machine No. 4 Burners (SN-46).
146. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records which demonstrate compliance with the limits listed in Specific Condition #145. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.
147. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, the permittee shall not produce in excess of 173 machine dried tons of paper per day (30 day rolling average) from the Tissue Machine No. 4.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

148. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records which demonstrate compliance with the limits listed in Specific Condition #147. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.
149. Pursuant to §18.1104 of Regulation #18, §19.303 of Regulation #19, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the scrubber shall be kept in good working condition at all times and shall meet the conditions shown in the following table. The scrubber liquid flow rate shall be measured daily. The results shall be kept on site and be available to Department personnel upon request.

SN	Control Equipment	Parameter	Units	Minimum Operating Limits
67	scrubber	liquid flow rate	gal/min	70

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN-47, 54 and 68
Tissue Machine No. 5

Emissions from the wet end and dry end of Tissue Machine No. 5 (SN-68) have been bubbled together. The Tissue Machine No. 5 Burners (SN-47) are being upgraded to 21 million Btu per hour. The burners are low NO_x burners. The Tissue Machine No. 5 Dust System (SN-54) uses a 20,000 cfm scrubber to control particulate matter emissions.

BACT Summary for Tissue Machine No. 5 Burners

Emission Unit	Pollutant	BACT Determination
No. 5 Tissue Machine Natural Gas Fired Burners (SN-47)	PM ₁₀ CO NO _x SO ₂ VOC	Clean Fuel Good Combustion Practice Low NO _x Burners Clean Fuel No Control

Specific Conditions

150. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Condition #159.

SN	Description	Pollutant	lb/hr	ton/yr
54	Tissue Machine No. 5 Dust System	PM ₁₀	0.3	1.1
68	Tissue Machine No. 5	VOC	0.7	2.1

151. Pursuant to §18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not cause to be discharged to the atmosphere from SN-54 gases which exhibit an opacity greater than 5%. Compliance with this opacity limit shall be demonstrated by compliance with Specific Condition #152. The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Part 60 Appendix A.
152. Pursuant to §18.1104 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the scrubber shall be kept in good working condition at all times and shall

Georgia-Pacific Corporation - Crossett Paper Operations**Permit #: 597-AOP-R3****CSN #: 02-0013**

meet the conditions shown in the following table. The scrubber liquid flow rate and the gas pressure drop across the unit shall be measured daily. The results shall be kept on site and be available to the Department personnel upon request.

SN	Control Equipment	Parameter	Units	Minimum Operating Limits
54	scrubber	liquid flow rate	gal/min	70
		gas pressure drop across unit	inches, H ₂ O	8

153. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee estimates the emission rates set forth in the following table will not be exceeded. The pollutant emission rates are effectively limited by Specific Condition #159.

SN	Description	Pollutant	lb/hr	ton/yr
54	Tissue Machine No. 5 Dust System	PM	0.3	1.1
68	Tissue Machine No. 5	Acetone	0.2	0.7
		Acrolein	0.1	0.1
		1,2 Dichloroethylene	0.1	0.1
		Terpenes	0.5	1.9

154. Pursuant to §19.501 et seq and §19.901 et seq of Regulation #19, and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Conditions #158 and #159.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN	Description	Pollutant	lb/hr	ton/yr
47	Tissue Machine No. 5 Burners (21 MMBtu/hr)	PM PM ₁₀	0.4	1.5
			0.0164 lb/MMBtu	
		SO ₂	0.1	0.1
			0.0007 lb/MMBtu	
		VOC	1.2	5.2
			0.0564 lb/MMBtu	
		CO	4.5	19.7
			0.2142 lb/MMBtu	
		NO _x	2.0	8.4
			0.0913 lb/MMBtu	

155. Pursuant to §19.503 and §19.901 et seq of Regulation #19, and 40 CFR Part 52 Subpart E, the permittee shall not cause to be discharged to the atmosphere from SN-47 gases which exhibit an opacity greater than 5%. The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Part 60 Appendix A. Compliance with this opacity limit shall be demonstrated by the use of natural gas.
156. Pursuant to §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, natural gas shall be the only fuel used for the Tissue Machine No. 5 Burners (SN-47).
157. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall maintain records which demonstrate compliance with the limits listed in Specific Condition #156. The records shall be updated on a monthly basis and shall include periods of usage for each fuel type (not quantities) of fuel used. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.
158. Pursuant to §19.702 and §19.901 et seq of Regulation #19, and 40 CFR Part 52 Subpart E, the permittee shall test SN-47 for CO and NO_x to verify compliance with the BACT emission limits specified in Specific Condition #154 initially and once every three years thereafter. The first test shall be conducted within 60 days of achieving the maximum production rate, but in no event later than 180 days after initial start-up of the modified permitted source. Testing shall be performed in accordance with Plantwide Condition #3.

Georgia-Pacific Corporation - Crossett Paper Operations

Permit #: 597-AOP-R3

CSN #: 02-0013

Testing for CO and NO_x shall also be performed in accordance with EPA Reference Methods 10 and 7E respectively. During the test the permittee shall operate the source within 10 percent of the rated throughput capacity. If 90 percent of the rated throughout capacity can not be achieved, the permittee shall be limited to 11 percent above the actual tested throughput.

159. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, the permittee shall not produce in excess of 97 machine dried tons of paper per day (30 day rolling average) from the Tissue Machine No. 5.
160. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records which demonstrate compliance with the limits listed in Specific Condition #159. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN-48, 51, 52 and 69
Tissue Machine No. 6

Emissions from the wet end and dry end of Tissue Machine No. 6 (SN-69) have been bubbled together. The Tissue Machine No. 6 Burners (SN-48) are were upgraded to 58.4 million Btu per hour. The burners are low NO_x burners. Tissue Machine No. 6 Dust System (SN-52) uses a 47,000 cfm scrubber to control particulate matter emissions. A 47,000 cfm scrubber is used to control particulate emissions from the rewinder (SN-51) near Tissue Machine No. 6.

BACT Summary for Tissue Machine No. 6 Burners

Emission Unit	Pollutant	BACT Determination
No. 6 Tissue Machine Natural Gas Fired Burners (SN-48)	PM ₁₀ CO NO _x SO ₂ VOC	Clean Fuel Good Combustion Practice Low NO _x Burners Clean Fuel No Control

Specific Conditions

161. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Condition #170.

SN	Description	Pollutant	lb/hr	ton/yr
51	Tissue Machine No. 6 Rewinder	PM ₁₀	0.5	1.8
52	Tissue Machine No. 6 Dust System	PM ₁₀	0.5	1.8
69	Tissue Machine No. 6	VOC	2.6	10.5

162. Pursuant to §18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not cause to be discharged to the atmosphere from SN-51 or SN-52 gases which exhibit an opacity greater than 5%. Compliance with this opacity limit shall be demonstrated by compliance with Specific Condition #163. The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Part 60 Appendix A.

Georgia-Pacific Corporation - Crossett Paper Operations**Permit #: 597-AOP-R3****CSN #: 02-0013**

163. Pursuant to §18.1004 of Regulation #18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall conduct weekly observations of the opacity from SN-51 and keep a record of these observations. If visible emissions are detected, then the permittee shall conduct a 6-minute opacity reading in accordance with EPA Reference Method 9. The results of these observations shall be kept on site and shall be made available to Department personnel upon request.

Pursuant to §18.1104 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall keep the scrubber on SN-52 in good working condition at all times and shall meet the conditions shown in the following table. The scrubber liquid flow rate and the gas pressure drop across the unit shall be measured daily. The results shall be kept on site and be available to the Department personnel upon request.

SN	Control Equipment	Parameter	Units	Minimum Operating Limits
52	scrubber	liquid flow rate	gal/min	300
		gas pressure drop across unit	inches, H ₂ O	8

164. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee estimates the emission rates set forth in the following table will not be exceeded. The pollutant emission rates are effectively limited by Specific Condition #170.

SN	Description	Pollutant	lb/hr	ton/yr
51	Tissue Machine No. 6 Rewinder	PM	0.5	1.8
52	Tissue Machine No. 6 Dust System	PM	0.5	1.8
69	Tissue Machine No. 6	Acetaldehyde	0.6	2.4
		Acetone	0.4	1.8
		Acrolein	0.1	0.1
		1,2 Dichloroethylene	0.1	0.3
		Formaldehyde	0.1	0.4
		Methanol	0.5	2.1
		Terpenes	1.2	5.2

165. Pursuant to §19.501 et seq and §19.901 et seq of Regulation #19, and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Conditions #169 and #170.

SN	Description	Pollutant	lb/hr	ton/yr
48	Tissue Machine No. 6 Burners (58.4 MMBtu/hr)	PM PM ₁₀	1.0	4.2
			0.0164 lb/MMBtu	
		SO ₂	0.1	0.2
			0.0007 lb/MMBtu	
		VOC	1.2	4.9
			0.0192 lb/MMBtu	
		CO	6.7	29.1
			0.1139 lb/MMBtu	
		NO _x	5.4	23.4
			0.0913 lb/MMBtu	

166. Pursuant to §19.503 and §19.901 et seq of Regulation #19, and 40 CFR Part 52 Subpart E, the permittee shall not cause to be discharged to the atmosphere from SN-48 gases which exhibit an opacity greater than 5%. The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Part 60 Appendix A. Compliance with this opacity limit shall be demonstrated by the use of natural gas.
167. Pursuant to §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, natural gas shall be the only fuel used for the Tissue Machine No. 6 Burners (SN-48).
168. Pursuant to §19.705 of Regulation #19, and 40 CFR Part 52 Subpart E, the permittee shall maintain records which demonstrate compliance with the limits listed in Specific Condition #167. The records shall be updated on a monthly basis and shall include periods of usage for each fuel type (not quantities) of fuel used. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.
169. Pursuant to §19.702 and §19.901 of Regulation #19, and 40 CFR Part 52 Subpart E, the permittee shall test SN-48 for CO and NO_x to verify compliance with the BACT emission

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

limits specified in Specific Condition #165 initially and once every three years thereafter. The first test shall be conducted within 60 days of achieving the maximum production rate, but in no event later than 180 days after initial start-up of the modified permitted source. Testing shall be performed in accordance with Plantwide Condition #3. Testing for CO and NO_x shall also be performed in accordance with EPA Reference Methods 10 and 7E respectively. During the test the permittee shall operate the source within 10 percent of the rated throughput capacity. If 90 percent of the rated throughput capacity can not be achieved, the permittee shall be limited to 11 percent above the actual tested throughput.

170. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR §70.6, the permittee shall not produce in excess of 270 machine dried tons of paper per day (30 day rolling average) from the Tissue Machine No. 6.
171. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records which demonstrate compliance with the limits listed in Specific Condition #170. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN-49, 50 and 70
Tissue Machine No. 7

Emissions from the wet end and dry end of Tissue Machine No. 7 (SN-70) have been bubbled together. The Tissue Machine No. 7 Burners (SN-49) combust natural gas at a total heating rate of 41 million Btu per hour. The burners are low NO_x burners. Tissue Machine No. 7 Dust System (SN-50) uses a 44,000 cfm scrubber to control particulate matter emissions.

Specific Conditions

172. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Conditions #175 and #177.

SN	Description	Pollutant	lb/hr	ton/yr
49	Tissue Machine No. 7 Burners	PM ₁₀	0.7	3.0
		SO ₂	0.1	0.1
		VOC	0.8	3.4
		CO	4.7	20.4
		NO _x	3.8	16.4
50	Tissue Machine No. 7 Dust System	PM ₁₀	0.5	2.0
70	Tissue Machine No. 7	VOC	2.4	9.5

173. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee estimates the emission rates set forth in the following table will not be exceeded. The pollutant emission rates are effectively limited by Specific Conditions #175 and #177.

SN	Description	Pollutant	lb/hr	ton/yr
49	Tissue Machine No. 7 Burners	PM	0.7	3.0
50	Tissue Machine No. 7 Dust System	PM	0.5	2.0
70	Tissue Machine No. 7	Acetaldehyde	0.5	2.2

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN	Description	Pollutant	lb/hr	ton/yr
		Acetone	0.4	1.7
		Acrolein	0.1	0.1
		1,2 Dichloroethylene	0.1	0.2
		Formaldehyde	0.1	0.3
		Methanol	0.5	1.9
		Terpenes	1.1	4.8

174. Pursuant to §18.501 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not cause to be discharged to the atmosphere from SN-49 gases which exhibit an opacity greater than 5%. Compliance with this opacity limit shall be demonstrated by the use of natural gas.

The permittee shall not cause to be discharged to the atmosphere from SN-50 gases which exhibit an opacity greater than 5%. Compliance with this opacity limit shall be demonstrated by the proper operation of the scrubber.

The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Appendix A.

175. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, natural gas shall be the only fuel used for Tissue Machine No. 7 Burners (SN-49).
176. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records which demonstrate compliance with the limits listed in Specific Condition #175. The records shall be updated on a monthly basis and shall include periods of usage for each type (not quantities) of fuel used. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.
177. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, the permittee shall not produce in excess of 250 machine dried tons of paper per day (30 day rolling average) from the Tissue Machine No. 7.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

178. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records which demonstrate compliance with the limits listed in Specific Condition #177. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.
179. Pursuant to §18.1104 of Regulation #18, §19.303 of Regulation #19, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the scrubber shall be kept in good working condition at all times and shall meet the conditions shown in the following table. The scrubber liquid flow rate shall be measured daily. The results shall be kept on site and be available to Department personnel upon request.

SN	Control Equipment	Parameter	Units	Minimum Operating Limits
50	scrubber	liquid flow rate	gal/min	300

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN-79, 80 and 81
Tissue Machine No. 8

Proposed emissions from the wet end and dry end of Tissue Machine No. 8 (SN-80) have been bubbled together. The Tissue Machine No. 8 Burners (SN-79) combust natural gas at a total heating rate of 50 million Btu per hour. The burners will be low NO_x burners. Tissue Machine No. 8 Dust System (SN-81) is equipped with a 55,000 cfm wet venturi scrubber dust system to control particulate matter emissions.

BACT Summary for Tissue Machine No. 8

Emission Unit	Pollutant	BACT Determination
No. 8 Tissue Machine Natural Gas Fired Burners (SN-79)	PM ₁₀ CO NO _x SO ₂ VOC	Clean Fuel Good Combustion Practice Low NO _x Burners Clean Fuel No Control
No. 8 Tissue Machine (SN-80)	VOC	No Control
No. 8 Tissue Machine Dust System (SN-81)	PM ₁₀	Wet Scrubber

Specific Conditions

180. Pursuant to §19.501 et seq and §19.901 et seq of Regulation #19, and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Conditions #185, #186, and #187.

SN	Description	Pollutant	lb/hr	ton/yr
79	Tissue Machine No. 8 Burners (50 MMBtu/hr)	PM PM ₁₀	0.9	3.6
			0.0164 lb/MMBtu	
		SO ₂	0.1	0.2
			0.0007 lb/MMBtu	

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN	Description	Pollutant	lb/hr	ton/yr
79	Tissue Machine No. 8 Burners (50 MMBtu/hr)	VOC	1.0	4.2
			0.0192 lb/MMBtu	
		CO	5.7	24.9
			0.1139 lb/MMBtu	
		NO _x	4.6	20.0
			0.0913 lb/MMBtu	
80	Tissue Machine No. 8	VOC	0.5	1.8
			0.045 lb/MDT	
81	Tissue Machine No. 8 Dust System	PM PM ₁₀	1.7	7.2
			0.0035 gr/dscf	

181. Pursuant to §19.503 and §19.901 et seq of Regulation #19, and 40 CFR Part 52 Subpart E, the permittee shall not cause to be discharged to the atmosphere from SN-79 gases which exhibit an opacity greater than 5%. Compliance with this opacity limit shall be demonstrated by the use of natural gas.

The permittee shall not cause to be discharged to the atmosphere from SN-81 gases which exhibit an opacity greater than 5%. Compliance with this opacity limit shall be demonstrated by the proper operation of the scrubber.

The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Part 60 Appendix A.

182. Pursuant to §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, natural gas shall be the only fuel used for Tissue Machine No. 8 Burners (SN-79).
183. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall maintain records which demonstrate compliance with the limits listed in Specific Condition #182. The records shall be updated on a monthly basis and shall include periods of usage for each type (not quantities) of fuel used. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

184. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee estimates the emission rates set forth in the following table will not be exceeded. The pollutant emission rates are effectively limited by Specific Condition #187.

SN	Description	Pollutant	lb/hr	ton/yr
80	Tissue Machine No. 8	Acetaldehyde	0.5	1.9
		Acetone	0.4	1.4
		Acrolein	0.1	0.1
		1,2 Dichloroethylene	0.1	0.2
		Formaldehyde	0.1	0.3
		Methanol	0.4	1.6
		Terpenes	1.0	4.1

185. Pursuant to §19.702 and §19.901 et seq of Regulation #19, and 40 CFR Part 52 Subpart E, the permittee shall test SN-79 for CO and NO_x to verify compliance with the BACT emission limits specified in Specific Condition #180 initially and once every three years thereafter. The first test shall be conducted within 60 days of achieving the maximum production rate, but in no event later than 180 days after initial start-up of the permitted source. Testing for CO and NO_x shall be performed in accordance with Plantwide Condition #3 and EPA Reference Methods 10 and 7E respectively. During the test the permittee shall operate the source within 10 percent of the rated throughput capacity. If 90 percent of the rated throughput capacity can not be achieved, the permittee shall be limited to 11 percent above the actual tested throughput.
186. Pursuant to §19.702 and §19.901 et seq of Regulation #19, and 40 CFR Part 52 Subpart E, the permittee shall test SN-81 for PM/PM₁₀ to verify compliance with the BACT emission limit specified in Specific Conditions #180 initially and once every three years thereafter. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 5. During the test the permittee shall operate the source within 10 percent of the rated throughput capacity. If 90 percent of the rated throughput capacity can not be achieved, the permittee shall be limited to 11 percent above the actual tested throughput.
187. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, the permittee shall not produce

Georgia-Pacific Corporation - Crossett Paper Operations

Permit #: 597-AOP-R3

CSN #: 02-0013

in excess of 212 machine dried tons of paper per day (30 day rolling average) from the Tissue Machine No. 8.

188. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records which demonstrate compliance with the limits listed in Specific Condition #187. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.
189. Pursuant to §19.703 and §19.901 et seq of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall operate and maintain a device to measure the pressure drop across the wet venturi scrubber on the Tissue Machine No. 8 Dust System (SN-81).
190. Pursuant to §19.303 of Regulation #19, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the scrubber shall be kept in good working condition at all times and shall meet the conditions shown in the following table. The gas pressure drop across the scrubber shall be measured daily. The results shall be kept on site and be available to Department personnel upon request.

SN	Control Equipment	Parameter	Units	Minimum Operating Limit	Maximum Operating Limit
81	scrubber	gas pressure drop across unit	in. H ₂ O	8	10

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN-84,85,86,87,88,89,90,91,92
No. 9 Tissue Machine

The new No. 9 Tissue Machine (SN-90) will incorporate TAD technology, which is vastly different than conventional paper machines. With the machine installation, several associated sources will be installed as well: Vacuum Pump Exhaust (SN-84), TAD Exhaust No. 1 (SN-85A), TAD Exhaust No.2 (SN-85B), Mist Elimination System (SN-86), Dust Collection System (SN-87), Converting Repulper "A" (SN88), Yankee Aircap Exhaust, 21 MMBTU/hr, and Emergency Exhaust (SN-89 and SN-89A), Converting Equipment Fugitive Emissions (SN-91), and a Fan Pump Silo Vent (SN-92). SN-85A and SN-85B are rated at 50 MMBTU/hr and 90 MMBTU/hr, respectively. SN-89 is composed of two burners, rated combined at 21 MMBTU/hr. All burners will be natural gas-fired. Fugitive VOC emissions from SN-90 and SN-91 are combined. The Yankee Aircap Emergency Exhaust is are not a separate stack from the Yankee Aircap Exhaust and is only used as an emergency damper.

Specific Conditions

191. Pursuant to §19.501 et seq and §19.901 et seq of Regulation #19, and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Conditions #193 through #205.

SN	Description	Pollutant	lb/hr	ton/yr
84	Vacuum Pump Exhaust	PM ₁₀	0.2	0.6
			0.0002 gr/ft ³	
		VOC	0.2	0.7
85A	TAD Exhaust No. 1	PM ₁₀	0.9	3.9
			0.0217 lb/MMBTU	
		SO ₂	0.1	0.3
		VOC	4.1	17.7

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN	Description	Pollutant	lb/hr	ton/yr
85A	TAD Exhaust No. 1	NO _x	8.2	36.0
			0.0913 lb/MMBTU	
		CO	16.2	71.0
			0.18 lb/MMBTU	
85B	TAD Exhaust No. 2	PM ₁₀	1.8	7.8
			0.0217 lb/MMBTU	
		SO ₂	0.1	0.2
		VOC	2.3	9.9
		NO _x	4.6	24.0
			0.0913 lb/MMBTU	
		CO	9.0	20.0
			0.18 lb/MMBTU	
86	Mist Elimination System	PM ₁₀	0.2	0.7
			0.0002 gr/ft ³	
		VOC	0.6	2.6
87	Dust Collection System	PM ₁₀	1.1	4.7
			0.001 gr/ft ³	
		VOC	0.1	0.2
88	Converting Repulper "A"	PM ₁₀	0.1	0.4
			0.001 gr/ft ³	
		VOC	0.1	0.3

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN	Description	Pollutant	lb/hr	ton/yr
89	Yankee AirCap Exhaust	PM ₁₀	0.4	1.5
			0.0164 lb/MMBTU	
		SO ₂	0.1	0.2
		VOC	0.4	1.8
		NO _x	1.9	8.4
			0.0913 lb MMBTU/hr	
		CO	3.8	16.6
			0.18 lb/MMBTU	
90	No. 9 Paper Machine Non-Stack*	PM ₁₀	1.0	4.2
		VOC	66.2	289.8
			6.8 lb/ton of MDT	
91	Converting Equipment Non-Stack*	PM ₁₀	0.2	0.8
		VOC	66.2	289.8
			6.8 lb/ton of MDT	
92	Fan Pump Silo Vent	VOC	0.1	0.2

*The emission rates listed for each source (SN-90 and SN-91) represent the combined totals for VOC.

192. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee estimates the emission rates set forth in the following table will not be exceeded. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Conditions #193 through #205.

SN	Description	Pollutant	lb/hr	ton/yr
84	Vacuum Pump	PM	0.2	0.6
		Acetaldehyde	0.01	0.04
		Biphenyl	0.02	0.08
		Chloroform	0.02	0.08
		Methanol	0.03	0.10
		Toluene	0.02	0.07

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN	Description	Pollutant	lb/hr	ton/yr
85A	TAD Exhaust 1	PM	0.9	3.9
		Acetaldehyde	0.05	0.23
		Biphenyl	0.24	1.17
		Formaldehyde	0.01	0.03
		Hexane	0.17	0.72
85B	TAD Exhaust 2	PM	1.8	7.8
		Acetaldehyde	0.03	0.12
		Biphenyl	0.16	0.63
		Formaldehyde	0.01	0.02
		Hexane	0.08	0.38
86	Mist Elimination System	PM	0.2	0.7
		Acetaldehyde	0.02	0.09
		Biphenyl	0.17	0.74
		Methylene Chloride	0.01	0.05
		Phenol	0.20	0.86
87	Dust Collection System	PM	1.1	4.7
		Chloroform	0.10	0.12
88	Converting Repulper "A"	PM	0.1	0.4
		Chloroform	0.10	0.23
89	Yankee Aircap Exhaust	PM	0.4	1.5
		Acetaldehyde	0.08	0.35
		Biphenyl	0.40	1.80
		Hexane	0.04	0.17
90	No. 9 Paper Machine Non-Stack	PM	1.2	5.0
		Acetaldehyde	0.02	0.09
		Biphenyl	0.17	0.74
91	Converting Equipment Non-Stack	Methylene Chloride	0.01	0.05
		Phenol	0.20	0.86
		Epichlorohydrin	0.08	0.33

193. Pursuant to §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, natural gas shall be the only fuel used for Tissue Machine No. 9 Burners (SN-85A, SN-85B, SN-89).
194. Pursuant to §19.503 and §19.901 et seq of Regulation #19, and 40 CFR Part 52 Subpart E, the permittee shall not cause to be discharged to the atmosphere from SN-85A, SN-85B, and SN-89 gases which exhibit an opacity greater than 5%. Compliance with this opacity limit shall be demonstrated by the use of natural gas.

The permittee shall not cause to be discharged to the atmosphere from SN-84 and SN-88 gases which exhibit an opacity greater than 5%. Compliance with this opacity limit shall

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

be demonstrated by initial testing requirements for particulate for both sources and the use of the fan for SN-88.

The permittee shall not cause to be discharged to the atmosphere from SN-86 and SN-87 gases which exhibit an opacity greater than 5%. Compliance with this opacity limit shall be demonstrated by proper operation and monitoring period of water sprays in SN-86 and the flowrate of water through the scrubber for SN-87.

The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR Part 60 Appendix A.

195. Pursuant to §§19.503 and §§19.901 et seq of Regulation #19, and 40 CFR Part 52 Subpart E, the permittee shall not cause to be discharged to the atmosphere from SN-90 and SN-91 gases which exhibit any visible emissions for any duration exceeding 6 minutes per 60-minute period. This test will not be a EPA Method 9 test, only a yes/no check for visible emissions. The permittee shall check for the presence of visible emissions from each corner of the No. 9 Paper Machine Building. If visible emissions are detected for more than 6 minutes per hour, then the permittee shall determine the source of the visible emissions. Once the source is identified, the permittee shall immediately take action to identify the cause of the visible emissions, implement corrective action, and document that visible emissions did not appear following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Department personnel upon request.
 - a. The date and time of the observation
 - b. If visible emissions were detected
 - c. If visible emissions were detected, the source number causing the visible emissions, the cause of the visible emissions, the corrective action taken, and whether any visible emissions appeared after the corrective action was taken.
 - d. The name of the person conducting the observation.
196. Pursuant to §19.703 and §19.901 et seq of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the fan associated with SN-88 shall be in use during that source's operation.
197. Pursuant to §19.703 and §19.901 et seq of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall daily monitor and record the usage period of the water spray for SN-86.

Georgia-Pacific Corporation - Crossett Paper Operations

Permit #: 597-AOP-R3

CSN #: 02-0013

198. Pursuant to §19.703 and §19.901 et seq of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall operate and maintain a device to measure the flowrate across the scrubber of SN-87.
199. Pursuant to §19.303 of Regulation #19, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the scrubbers and spray systems shall be kept in good working condition at all times and shall meet the conditions shown in the following table. The flowrate shall be measured daily. The results shall be kept on site and be made available to Department personnel upon request.

SN	Control Equipment	Parameter	Units	Minimum Operating Limits
SN-87	scrubber	liquid flow rate	gal/min	250

200. Pursuant to §19.702 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall initially test PM/PM₁₀ emissions from SN-87 to verify compliance with the BACT emission limits, both mass emission rates (lb/hr) and performance limits (gr/ft³, lb/MMBTU), specified in Specific Condition #191. The test shall be conducted within 60 days of achieving the maximum production rate, but in no event later than 180 days after initial start-up of the permitted source. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 5 with inclusion of back half sampling train particulate. During the test the permittee shall operate the source within 10 percent of the rated throughput capacity. If 90 percent of the rated throughput capacity can not be achieved, the permittee shall be limited to 11 percent above the actual tested throughput.
201. Pursuant to §19.702 and §19.901 et seq of Regulation #19, and 40 CFR Part 52 Subpart E, the permittee shall initially test SN-87 and SN-88 for VOC to verify compliance with the BACT emission limits specified in Specific Condition #191. The test shall be conducted within 60 days of achieving the maximum production rate, but in no event later than 180 days after initial start-up of the modified permitted source. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 25A. During the test the permittee shall operate the source within 10 percent of the rated throughput capacity. If 90 percent of the rated throughput capacity can not be achieved, the permittee shall be limited to 11 percent above the actual tested throughput.
202. Pursuant to §19.702 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall test CO and NO_x emissions from SN-85A, SN-85B, and SN-89 to verify compliance with the BACT emission limits, both mass emission rates (lb/hr) and performance limits (lb/MMBTU), specified in Specific Condition #191. The first test shall be conducted within 60 days of achieving the maximum production rate, but in no event later than 180

Georgia-Pacific Corporation - Crossett Paper Operations

Permit #: 597-AOP-R3

CSN #: 02-0013

days after initial start-up of the permitted source. Subsequent testing shall be repeated once every three years. Testing for CO and NO_x shall be performed in accordance with Plantwide Condition #3 and EPA Reference Methods 10 and 7E respectively. During the test the permittee shall operate the source within 10 percent of the rated throughput capacity. If 90 percent of the rated throughput capacity can not be achieved, the permittee shall be limited to 11 percent above the actual tested throughput.

203. Pursuant to §19.702 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall be maintain monthly records of additive usage for SN-90 and SN-91 to verify compliance with the VOC BACT emission limits, specifically performance limits (lb/MDT), specified in Specific Condition #191. Records shall also indicate HAPs content and emissions. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.
204. Pursuant to §18.1004 of Regulation #18, §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, the permittee shall not produce in excess of 250 machine dried tons of paper per day (30 day rolling average) from the Tissue Machine No. 9. Included in the general throughput limit of 250 MDT per day (30 day rolling average), the permittee shall not process more than 82,125 air-dried tons of finished paper associated with sources SN-84, SN-86, and SN-92 per rolling 12 month period.
205. Pursuant to §18.1004 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records which demonstrate compliance with the limits listed in Specific Condition #204. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request, and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN-71 and 72
No. 8 and No. 9 Extruder Machines

Source Description

The extrusion plant includes the No. 8 and No. 9 extruder machines which polycoat board. The extrusion plant receives board from the board machine and outside board customers and applies a polymer coating. Rolls of board are loaded onto an unwind stand. The board passes through a calender stack and is subjected to a burner which flame seals the board. An extruded poly sheet is then pressed together with the board. The combined product is then passed through an electrostatic treater (SN-71 for No. 8 Extruder and SN-72 for No. 9 Extruder) which enhances the surface quality of the product. Each extruder has two electrostatic treaters.

Both extrusion lines also include rewinding facilities which can be used to cut the extruded product to size and rewind the material so poly can be applied to the opposite side. The extrusion plant also performs shredding, trim chopping and spool cutting. Particulate matter emissions from these activities are controlled by cyclones.

Specific Conditions

206. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced as §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Condition #207.

SN	Description	Pollutant	lb/hr	ton/yr
71	No. 8 Extruder Electrostatic Treater	Ozone	0.7	3.1
72	No. 9 Extruder Electrostatic Treater	Ozone	1.5	6.2

207. Pursuant to §18.1004 of Regulation #19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not produce in excess of 750 machine dried tons of coated paper per day (30 day rolling average) from the No. 8 and No. 9 Extruder Machines combined.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

208. Pursuant to §18.1004 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records which demonstrate compliance with the limits listed in Specific Condition #207. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN-73
Lap Pulp Machine

Source Description

The lap machine (SN-73) produces wet lap pulp. This is commonly produced for internal use as another source of fiber during interrupted production and operational problems but it is also sold as a final product. The wet lap machine operations include stock preparation, wet lap machine wire and cylinder drum mold and presses.

Specific Conditions

209. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this Specific Condition shall be demonstrated by compliance with Specific Condition #211.

Pollutant	lb/hr	ton/yr
VOC	1.0	4.4

210. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee estimates the emission limits set forth in the following table will not be exceeded. The pollutant emission rates are effectively limited by Specific Condition #211.

Pollutant	lb/hr	ton/yr
Acrolein	0.1	0.1
Methanol	0.9	3.7
Styrene	0.1	0.2

211. Pursuant to §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, the permittee shall not produce in excess of 200 air dried tons of lap pulp per day (30 day rolling average) from the Lap Pulp Machine.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

212. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall maintain records which demonstrate compliance with the limits listed in Specific Condition #211. The records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN-35F
Aeration Stabilization Basin

Source Description

Wastewater is treated by the Crossett Paper Operations treatment plant. The wastewater is gathered in two open sewers, a bleach plant/utilities sewer and a process sewer. Wastewater Treatment System nutrients are added to the bleach plant/utilities sewer to enhance biological activity. After primary clarification, the process sewer and the bleach plant/utilities sewer combine and flow into one of two settling basins. The effluent travels through a surge basin and is combined with the City of Crossett's treated effluent as it enters a 265 acre extended aeration stabilization basin (ASB, SN-35F). The effluent from the ASB is sent to a holding basin called Mossy Lake, which has a surface area that varies from 200 to 600 acres. Treated effluent is discharged from Mossy Lake to the Ouachita River via Coffee Creek.

Air emissions result from the biological wastewater treatment processes. The air emissions are a factor of such things as the flow to the secondary treatment, the volume of the aeration stabilization basin, the temperature of the aeration stabilization basin and the surface area of the aeration stabilization basin.

Specific Conditions

213. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. The emissions from this source are limited by the production levels of the mill.

Pollutant	lb/hr	ton/yr
VOC	16.5	70.8

214. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. The emissions from this source are limited by the production levels of the mill.

Pollutant	lb/hr	ton/yr
Benzene	0.1	0.1
Chloroform	2.0	8.7
Methanol	14.1	61.6
MEK	0.1	0.1

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

Pollutant	lb/hr	ton/yr
Naphthalene	0.1	0.2
Xylene	0.1	0.1

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SN-40, 75, 76F, 78F and 82F
Tanks and Miscellaneous Activities

Source Description

Storage tanks containing various organic chemicals, gasoline, diesel and hydraulic oil are located around the site supporting the various key process areas already described. The emissions are due to the working and standing losses from the tanks. There are nine large pulp storage tanks located at Crossett Paper Operations (SN-75). An open storage basin (SN-76F) at the facility stores black liquor. The front black liquor storage basin at the facility was closed in 1996.

Fugitive emissions from unpaved roads (SN-78F) are generated by vehicle traffic. Unpaved roads are located in the utilities area, woodyard, laydown area, contractors area and around the wastewater treatment system.

Maintenance activities generate fugitive emissions from welding, sand blasting, demolition, service and repair activities for a wide variety of equipment at the facility. In addition, maintenance activities generate fugitive VOC emissions from the use of solvents, lubricants, detergents and surfactants.

The Methanol Tank (SN-40) at Georgia-Pacific is subject to regulation under NSPS Subpart Kb. The specifications of the Methanol Tank and other significant storage tanks at Georgia-Pacific are listed in Table I.

There are two active landfills at Crossett Paper Operations, the East Landfill and the North Landfill. The East Landfill is permitted to operate as a Class IV Landfill and accepts only woodwaste and concrete debris. The North Landfill is an industrial landfill which accepts general waste from the mill. No municipal waste is disposed in either landfill. The only significant source of emissions expected from these landfills is VOC emissions from the North Landfill. The North Landfill was permitted by the Department and began operation on September 1, 1998. The North Landfill is located approximately two miles north of the mill. The West Landfill ceased operation on September 1, 1998. The West Landfill is currently undergoing closure activities. The North Landfill accepts similar waste as the West Landfill.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

Specific Conditions

215. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with the pollutant emission rates associated with the Methanol Tank are demonstrated by compliance with Specific Condition #218. The emissions from the other sources are limited by the production levels of the mill.

SN	Description	Pollutant	lb/hr	ton/yr
40	Methanol Storage Tank	VOC	37.5	1.2
75	Pulp Storage Chests	VOC	9.3	40.7
76F	Black Liquor Storage Basin No. 1	VOC	28.0	122.8
78F	Road Emissions	PM ₁₀	44.7	195.8
84F	North Landfill	VOC	4.3	18.7

216. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee estimates the emission rates set forth in the following table will not be exceeded. The pollutant emission rates associated with the Methanol Tank are effectively limited by Specific Condition #218. The emissions from the other sources are limited by the production levels of the mill.

SN	Description	Pollutant	lb/hr	ton/yr
40	Methanol Storage Tank	Methanol	37.5	1.2
76F	Black Liquor Storage Basin No. 1	Acetaldehyde	1.4	5.8
		Acetone	2.3	9.9
		Methanol	16.1	70.4
		MEK	4.1	18.0
78F	Road Emissions	PM	44.7	195.8

217. The Methanol Tank is subject to and shall comply with all applicable provisions of 40 CFR Part 60 Subpart A General Provisions and Subpart Kb Standards of Performance for Volatile Organic Liquid Storage Vessels due to the fact that the tank was constructed after July 23, 1984 and has a capacity greater than 40 cubic meters. A copy of Subpart Kb is provided in Appendix D. Applicable provisions include, but are not limited to, maintaining records showing the dimension of the storage vessel and an analysis showing the design capacity of the storage vessel in accordance with 60.116b(a) and (b).

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

218. Pursuant to §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, throughput of methanol shall not exceed 40,000 barrels per twelve consecutive months.
219. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall maintain records which demonstrate compliance with the limits listed in Specific Condition #218. These records shall be updated on a monthly basis. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

CLUSTER RULE PULPING REQUIREMENTS

The Cluster Rule imposes HAP control on the pulping system, which is comprised of all pulping process equipment beginning with the digester system, up to and including the last piece of pulp conditioning equipment prior to the bleaching system. Total HAP control (as methanol) is divided into three source groups: the low volume – high concentration (LVHC) system, the high volume – low concentration (HVLC) system, and the pulping process condensates.

The incinerator (SN-83) is the only source of additional emissions. The incinerator is collecting emissions from other sources for combustion. The emissions from the new Incinerator will be an increase to actual emissions. The Incinerator will be combusting new (natural gas, SOGs, and HVLC NCGs) and existing (LVHC NCGs) fuels. The additional equipment will not increase the emissions or the pulp throughput limits.

Low Volume – High Concentration (LVHC) Collection System

Crossett Paper Operations has an existing LVHC Collection System that routes HAP emissions from the Digester, Turpentine Recovery, and Evaporator Systems to the No. 4 Lime Kiln (SN-25) for control. Per the requirements of the Cluster Rule, the only additional LVHC sources that need to be added to the collection system are the Turpentine Decanter, Turpentine Storage Tank, and the Foul Condensate Collection Tank.

At Crossett Paper Operations, the digestion of wood chips occurs in a batch operation rather than on a continuous basis. In batch digesters, NCGs, along with steam and HAPs, are removed from the digesters while the chips “cook” – convert to pulp. This stream is cooled to produce batch digester relief steam condensate. When Crossett Paper Operations pulps softwood, especially pine, the resulting condensates contain turpentine. These condensates are sent to the Turpentine Recovery System for extraction of the turpentine. The foul condensates will leave the turpentine recovery area as turpentine decanter underflow. In the Turpentine Recovery System, underflow from both the decanter and storage tanks are considered Kraft pulping condensates.

At the end of the cook, the pulp, cooking chemicals, and gases from the digesters are sent to the Blow Tank where large quantities of steam and some HAPs are released. This steam is condensed to form batch digester blow steam condensate. The fraction of HAPs that do not leave with the relief and blow steam continue with the pulp and weak black liquor to be collected by the HVLC Collection System and Evaporator Liquor Feed Stages described below.

Weak black liquor is fed to multiple effects in the evaporator. When the liquor is initially subjected to evaporation, the majority of the HAPs are removed from the liquor along with water vapor. The HAPs and water vapor are then condensed, thereby producing evaporator foul

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

condensate which is routed along with the rest of the pulp process condensates to the LEEPS System described below.

The LVHC gas sources that will be collected and routed to the Incinerator (SN-83) are as follows. Crossett Paper Operations will design and operate this equipment as a closed-vent system that will have no detectable leaks. These sources have a Cluster Rule compliance deadline of April 16, 2001.

- Turpentine decanter
- Turpentine storage tank
- Turpentine underflow tank
- Foul condensate storage tank
- NCG condensate seal tank
- NCG condensate seal tank

High Volume – Low Concentration (HVLC) Collection System

The HVLC System will be constructed as a closed-vent system. The intent is to control HAP emissions from the Pulp Washing Systems, Knotter Systems, Screening Systems, and Decker Systems. The emissions will be controlled as outlined in 40 CFR §63.443. HVLC sources are required to be controlled within eight years from the publication date of the Cluster Rule in the Federal Register – i.e. April 17, 2006. Crossett Paper Operations will control all HVLC sources within this scheduled time frame, however, the Line 1 Decker (SN-60) and Line 1 weak black liquor tank will be voluntarily controlled with a three year time frame – by April 16, 2001.

The following sources are planned to be collected and controlled as part of the HVLC Collection System. Pursuant to 40 CFR §63.455, the permittee shall update the Department with a Non-Binding Strategy Report, which identifies the sources to be collected and the scheduled compliance date. The table below contains the current list of sources planned for collection and their associated dates.

The Line 1 weak black liquor tank and the Line 1 Decker/Decker seal tank emissions are required to be collected by April 16, 2006. However, these two sources have been collected and routed to the NCG collection system by the April 16, 2001 deadline.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

HVLC Gas Source	Compliance Due Date
<u>Line 2 Washing System</u>	
Knotter surge chest	April 17, 2006
Liquor storage chest	April 17, 2006
Surge chest	April 17, 2006
Vibrating drainer	April 17, 2006
Knotter surge tank	April 17, 2006
<u>Line 1 Washing System</u>	
Pressate tank	April 17, 2006
Recovered fiber standpipe	April 17, 2006
Weak black liquor tank *	April 16, 2001 (Completed)
Separator drain tank	April 17, 2006
Washer stock chest	April 17, 2006
Decker and decker seal tank *	April 16, 2001 (Completed)
<u>No. 1 Screening System</u>	
Washed stock chest	April 17, 2006
Secondary screen supply tank	April 17, 2006
Tertiary screen supply tank	April 17, 2006
Quaternary screen supply tank	April 17, 2006
Decker and decker seal tank	April 17, 2006

* Compliance date voluntarily moved to April 16, 2001.

Small amounts of HVLC condensates form in the HVLC Collection System. The condensates will be removed at low points in the system. Although this condensate has a low volume, it is usually foul with TRS compounds. The collected HVLC condensates will be routed to the LEEPS System.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

Low Energy Environmental Pre-Evaporator & Stripper (LEEPS) System

In order to meet the Cluster Rule condensate standards, Crossett Paper Operations will install a LEEPS System that will be comprised of pre-evaporators, a concentrator, and a steam stripper. Pulping condensates from the Digester System, Turpentine Recovery System, Evaporator Liquor Feed Stages, and The LVHC and HVLC Collection Systems are sent directly to the steam stripper. At the same time, condensates from the new pre-evaporators / concentrator are also routed to the steam stripper. Steam from the stripper drives off the HAPs and TRS from the condensate. The clean condensates are then recycled to various processes in the Mill. The liquid and gaseous (SOGs) phases of the stripped portion are segregated. The liquid portion is routed to a storage tank from which it is routed to the Incinerator for destruction. Meanwhile, the SOGs are routed to the Incinerator (SN-83) for control. The No. 4 Lime Kiln or the 9A Boiler will serve as backup destruction devices for the SOGs.

Incinerator (SN-83)

Gas streams from the LVHC Collection System, the HVLC Collection System, and SOGs from the LEEPS System are fed into the Incinerator via a common burner. The HVLC system is diluted with combustion air before being fed to the combustion chamber. The Incinerator consists of a horizontal combustion chamber followed by a vertical SO₂ caustic packed-tower scrubber which, in turn, is followed by several mist eliminators.

Minimum incineration temperature in the primary combustion zone are required for efficient oxidation. For this Kraft mill application, combustion requirements dictate a minimum temperature of 1,600EF with a 0.75 second retention time (*see* 40 CFR §63.443(d)(3)).

Since the Incinerator combusts NCGs from both LVHC and HVLC Collection Systems, it has to meet a 96% uptime requirement. Crossett Paper Operations will comply by using the new Incinerator as the primary combustion device with the No. 4 Lime Kiln (SN-25) and the 9A Boiler (SN-22) as the backup combustion devices for the LVHC NCGs and SOGs only. The HVLC gases, which by definition have lower concentrations of NCGs, are vented to the atmosphere when the Incinerator is down. In the event that downtime occurs, excess emissions will be reported as required by 40 CFR §63.455.

Under normal operation, the fuel flow is controlled by the operating temperature in the Incinerator. The fuel requirements will vary with the amount of waste gases introduced into the collection system. Maximum fuel consumption will be required to bring the system up to temperature, but the consumption will be greatly reduced during normal incineration of the NCGs and SOGs. The NCGs have some heat content which reduces fuel consumption once normal incineration begins.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

The Incinerator system consists of a refractory lined Incinerator, a waste heat boiler, a cooler section, an SO₂ scrubber, a sulfuric acid removal system, and a discharge stack.

The waste heat boiler is located between the Incinerator outlet and the scrubber inlet. This boiler is a fire-tube type boiler with three passes. The boiler does not combust fuels, rather it scavenges the waste heat from the Incinerator to produce steam.

The gases exiting the Incinerator are in excess of 1,600EF. In order to scrub the SO₂ from these gases, the temperature is lowered. The 1600EF gases pass through a waste heat boiler exiting at 530EF. The gas temperature is further lowered through a primary cooler. The primary cooler is followed by a vertical SO₂ caustic packed-tower scrubber that continues to lower the temperature as it removes most of the sulfur gases from the combustion exhaust.

The absorption tower is followed by a sulfuric acid removal system. Fresh caustic is diluted to approximately 10 percent concentration to remove SO₂/SO₃ compounds. A recirculation loop is used to minimize caustic use. The makeup caustic is controlled by scrubber pH to maintain scrubbing effectiveness and efficiency.

The primary fuels for the Incinerator are methanol recovered from the foul condensates via the steam stripper and the LVHC gases. Natural gas is used as a backup fuel. For a given pollutant, the combustion of methanol produces the highest emission rates. The Incinerator are equipped with low-NO_x burners to control NO_x emissions and a scrubber to control PM/PM₁₀ and SO₂ emissions.

Specific Conditions

The Incinerator (SN-83)

215. Pursuant to §19.501 et seq of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall not exceed the emission rates set forth in the following table for the Incinerator (SN-83). Emissions are based on maximum capacity. Initial compliance with the PM₁₀ and VOC emission rates shall be demonstrated Specific Conditions #223 and #225, respectively. Annual compliance with the SO₂, CO, NO_x, and TRS emission rates shall be demonstrated by Specific Condition #224, #226, #227, and #228, respectively.

Pollutant	lb/hr	ton/yr
PM ₁₀	1.2	5.2
SO ₂	9.1	39.9
VOC	0.8	3.5
CO	6.0	26.3
NO _x	23.0	100.7
TRS	0.9	3.8

216. Pursuant to §18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee estimates the emission rates set forth in the following table for the Incinerator (SN-83) will not be exceeded. Emissions are based on maximum capacity. Initial compliance with the PM and Methanol emissions shall be demonstrated by Specific Conditions #223 and #229, respectively.

Pollutant	lb/hr	ton/yr
PM	1.2	5.2
Methanol	0.8	3.5

217. Pursuant to §19.503 of Regulation #19 and 40 C.F.R. Part 52 Subpart E, the permittee shall not cause to be discharged to the atmosphere from the Incinerator gases which exhibit an opacity greater than 20% as measured by EPA Reference Method 9. Compliance shall be demonstrated by the proper operation of the scrubber per Specific Condition #220.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

218. Pursuant to §19.705 of Regulation #19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR §70.6, natural gas may be used as a backup fuel for the Incinerator.
219. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall maintain records which demonstrate compliance with Specific Condition #218. These records shall be updated on a monthly basis and shall include periods of usage of natural gas, (not quantities) of fuel used. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes. A twelve month total and each individual month's data shall be submitted in accordance with General Provision #7.
220. Pursuant to §19.303 of Regulation #19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the scrubber shall be kept in good working condition at all times and shall meet the conditions shown in the following table. The scrubber liquid flow rate and caustic concentration measured as pH shall be measured daily. The results shall be kept on site and be available to Department personnel upon request.

SN	Control Equipment	Parameter	Units	Minimum Operating Limits
83	scrubber	pH		7.6
		liquid flow rate	gal/min	768

221. The Incinerator (SN-83) is subject to and shall comply with applicable provisions of §19.8 of Regulation #19, NSPS Subpart BB, and NESHAP Subpart S. Section 19.8 of Regulation #19 and NSPS Subpart BB both require incineration of NCGs at a minimum temperature of 1200EF for at least 0.5 seconds. NESHAP Subpart S requires incineration at a minimum temperature of 1600EF for at least 0.75 seconds.
222. Pursuant to §19.705 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall maintain records which demonstrate compliance with Specific Condition #221. These records shall be kept on site, provided to Department personnel upon request and may be used by the Department for enforcement purposes.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

- 223. Pursuant to §18.1002 of Regulation #18, §19.702 of Regulation #19, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall initially test particulate matter emissions from the Incinerator. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 5 as found in 40 CFR Part 60 Appendix A.
- 224. Pursuant to §19.702 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall annually test sulfur dioxide emissions from the Incinerator. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 6C as found in 40 CFR Part 60 Appendix A.
- 225. Pursuant to §19.702 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall initially test volatile organic compound emissions from the Incinerator. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 25A as found in 40 CFR Part 60 Appendix A.
- 226. Pursuant to §19.702 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall annually test carbon monoxide emissions from the Incinerator. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 10 as found in 40 CFR Part 60 Appendix A.
- 227. Pursuant to §19.702 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall annually test nitrogen oxides emissions from the Incinerator. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 7E as found in 40 CFR Part 60 Appendix A.
- 228. Pursuant to §19.702 of Regulation #19 and 40 CFR Part 52 Subpart E, the permittee shall annually test total reduced sulfur emissions from the Incinerator. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 16 as found in 40 CFR Part 60 Appendix A.
- 229. Pursuant to §18.1002 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall initially test methanol emissions from the Incinerator. Testing shall be performed in accordance with Plantwide Condition #3 and EPA Reference Method 18 as found in 40 CFR Part 60 Appendix A.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

The Pulping System

230. The pulping system (which is comprised of all pulping process equipment beginning with the digester system, up to and including the last piece of pulp conditioning equipment prior to the bleaching system) is subject to and shall comply with applicable provisions of 40 CFR Part 63 Subpart A – General Provisions and 40 CFR Part 63 Subpart S – National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry. A copy of Subpart S is provided in Appendix F. Applicable provisions include, but are not limited to, the following:

Standards for the Kraft pulping systems.

- A. Pursuant to 40 CFR §63.443(a), the permittee shall control the total HAP emissions from the equipment systems listed in 40 CFR §63.443(a), as specified in paragraphs (c) and (d) of 40 CFR §63.443.
- B. Pursuant to 40 CFR §63.443(c), the equipment systems listed in paragraphs (a) and (b) of 40 CFR §63.443 shall be enclosed and vented into a closed-vent system and routed to a control device that meets the requirements specified in paragraph (d) of 40 CFR §63.443. The enclosure and closed-vent system shall meet the requirements specified in 40 CFR §63.450.
- C. Pursuant to 40 CFR §63.443(d)(3), the control device used to reduce total HAP emissions from each equipment system listed in paragraphs (a) and (b) of 40 CFR §63.443 shall reduce total HAP emissions using a thermal oxidizer designed and operated at a minimum temperature of 871EC (1600EF) and a minimum residence time of 0.75 seconds.
- D. Pursuant to 40 CFR §63.443(e), periods of excess emissions reported under 40 CFR §63.455 shall not be a violation of 40 CFR §63.443 (c) and (d) provided that the time of excess emissions (excluding periods of startup, shutdown, or malfunction) divided by the total process operating time in a semi-annual period does not exceed the following levels: (1) one percent for control devices used to reduce the total HAP emissions from the LVHC system; and (2) four percent for control devices used to reduce the total HAP emissions from the HVLC system; and (3) four percent for control devices used to reduce the total HAP emissions from both the LVHC and HVLC systems.

Standards for kraft pulping process condensates.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

- E. Pursuant to 40 CFR §63.446(b), the pulping process condensates from the equipment systems listed in 40 CFR §63.446(b) shall be treated to meet the requirements specified in paragraphs (c), (d), and (e) of 40 CFR §63.446.
- F. Pursuant to 40 CFR §63.446(c), one of the combinations of HAP-containing pulping process condensates listed in 40 CFR §63.446(c) which is generated, produced, or associated with the equipment systems listed in paragraph (b) of 40 CFR §63.446 shall be subject to the requirements of paragraph (d) and (e) of 40 CFR §63.446.
- G. Pursuant to 40 CFR §63.446(d), the pulping process condensates from the equipment systems listed in paragraph (b) of 40 CFR §63.446 shall be conveyed in a closed collection system that is designed and operated to meet the requirements specified in paragraphs (d)(1) and (d)(2) of 40 CFR §63.446.
- H. Pursuant to 40 CFR §63.446(e)(5), each pulping process condensate from the equipment systems listed in paragraph (b) of 40 CFR §63.446 shall be treated according to the following option: at mills that perform bleaching, treat the pulping process condensates to remove 5.1 kilograms or more of total HAP per megagram (10.2 pounds per ton) of ODP (bleached), or achieve a total HAP concentration of 330 parts per million or less by weight at the outlet of the control device.
- I. Pursuant to 40 CFR §63.446(f), each HAP removed from a pulping process condensate stream during treatment and handling under paragraph (d) or (e) of 40 CFR §63.446 shall be controlled as specified in 40 CFR §43.443(c) and (d).
- J. Pursuant to 40 CFR §63.446(h), the permittee shall evaluate all new or modified pulping process condensates or changes in the annual bleached or non-bleached ODP used to comply with paragraph (i) of 40 CFR §63.446, to determine if they meet the applicable requirements of 40 CFR §63.446.
- K. Pursuant to 40 CFR §63.446(i), for the purposes of meeting the requirements in paragraphs (c)(2), (e)(4), or (e)(5) of 40 CFR §63.446 at mills producing both bleached and unbleached pulp products, the permittee may meet a prorated mass standard that is calculated by prorating the applicable mass standards (kilograms of total HAP per megagram of ODP) for bleached and unbleached specified in paragraphs (c)(2), (e)(4), or (e)(5) of 40 CFR §63.446 by the ratio of annual megagrams of bleached and unbleached ODP.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

Monitoring Requirements

- L. The Incinerator shall meet the monitoring requirements set forth in 40 CFR §63.453(b). The Steam Stripper shall meet the monitoring requirements set forth in 40 CFR §63.453(g). The LVHC collection system, the HVLC collection system, and the SOGs collection system all route to the Incinerator via a closed vent system. The Closed Vent System shall meet the monitoring requirements set forth in 40 CFR §63.453(k).

Recordkeeping and Reporting Requirements

- M. Pursuant to 40 CFR §63.454(b), the permittee shall prepare and maintain a site-specific inspection plan for the closed vent LVHC, HVLC, and SOG collection systems.
 - N. Excess emissions shall be reported as required by 40 CFR §63.455.
231. Pursuant to A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee may allow emissions from the incinerator and associated scrubber to be release to the atmosphere bypassing the associated candle filter sulfuric acid mist eliminator. Bypass shall only be allowed during periods of emergency maintenance to the sulfuric acid mist eliminator system.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SECTION V: COMPLIANCE PLAN AND SCHEDULE

1. The permittee has specifically identified in an application dated May 10, 1996 and May 26, 1998, the following applicable requirements that the facility is not currently in compliance with and the proposed means of attaining compliance.

Source No.	Applicable Requirement	Description	Proposal		Current Status
Facility	40 CFR §60.14(g)	Within 180 days of the completion of any physical or operational change subject to the control measures specified in paragraph (a) of this section, compliance with all applicable standards must be achieved.	Method of bringing the facility into compliance follows.		Please see items below.
Facility	§19.3(c)(2) of Regulation #19	Operating equipment in such a manner as to meet any applicable permit requirements or any applicable regulations.	Method of bringing the facility into compliance follows.		Please see items below.
03	40 CFR §60.45(a)	Each owner or operator shall install, calibrate, maintain, and operate continuous monitoring systems for measuring the opacity of emissions ...except as provided in paragraph (b) of this section.	<u>Facility Proposal:</u> Monitoring of opacity by visual means (weekly observations) rather than a continuous opacity monitor due to the fact the source is equipped with a wet scrubber.	<u>Department Proposal:</u> Monitoring of scrubber parameters rather than weekly observations.	Awaiting determination from the EPA. *

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

Source No.	Applicable Requirement	Description	Proposal	Current Status
33	40 CFR §60.283(a)	On or 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 5ppm by volume on a dry basis, corrected to 10 percent oxygen, unless the following conditions are met:...	Routing TRS emissions from the source to the lime kiln scrubber equipped with a continuous TRS monitor rather than to incineration due to economic infeasibility until the source is collected by the HVLC system.	Awaiting determination from the EPA. *
60	40 CFR §60.283(a)	On or 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 5ppm by volume on a dry basis, corrected to 10 percent oxygen, unless the following conditions are met:...	Variance from requirement until emissions are routed to proposed Incinerator. Even though the source is an 8 year source, the emissions will be routed within the 3 year time frame.	Awaiting determination from the EPA. *

* According to the Memorandum of Understanding between the Department and the EPA, the Department is not permitted to make these types of NSPS variance determinations.

- The following is a list of the Cluster Rule compliance dates that must be met by the permittee. Pursuant to 40 CFR §63.455, the permittee shall update the Department with a Non-Binding Strategy Report, which identifies the sources to be collected and the scheduled compliance date. The table below contains the current list of sources planned for collection and their associated dates.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

The Line 1 weak black liquor tank and the Line 1 Decker/Decker seal tank emissions are required to be collected by April 16, 2006. However, these two sources will be collected and routed to the NCG collection system on or before April 16, 2001.

Bleach Plant	Compliance Due Date
Elemental Chlorine Free	April 16, 2001 (Completed)
LVHC Gas Source	Compliance Due Date
Existing Turpentine Decanter	April 16, 2001 (Completed)
Existing turpentine storage tank	April 16, 2001 (Completed)
New turpentine underflow tank	April 16, 2001 (Completed)
Foul condensate storage tank	April 16, 2001 (Completed)
Existing NCG condensate seal tank	April 16, 2001 (Completed)
New NCG condensate seal tank	April 16, 2001 (Completed)
HVLC Gas Source	Compliance Due Date
<u>Line 2 Washing System</u>	
Knotter surge chest	April 17, 2006
Liquor storage chest	April 17, 2006
Surge chest	April 17, 2006
Vibrating drainer	April 17, 2006
Knotter surge tank	April 17, 2006
<u>Line 1 Washing System</u>	
Pressate tank	April 17, 2006
Recovered fiber standpipe	April 17, 2006
Weak black liquor tank *	April 16, 2001 (Completed)
Separator drain tank	April 17, 2006

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

Washer stock chest	April 17, 2006
Decker and decker seal tank *	April 16, 2001 (Completed)
<u>No. 1 Screening System</u>	
Washed stock chest	April 17, 2006
Secondary screen supply tank	April 17, 2006
Tertiary screen supply tank	April 17, 2006
Quaternary screen supply tank	April 17, 2006
Decker and decker seal tank	April 17, 2006

* Compliance date voluntarily moved to April 16, 2001.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

SECTION VI: INSIGNIFICANT ACTIVITIES

Pursuant to §26.304 of Regulation 26, the following sources are insignificant activities. Any activity for which a state or federal applicable requirement applies is not insignificant even if this activity meets the criteria of §304 of Regulation 26 or is listed below. Insignificant activity determinations rely upon the information submitted by the permittee in an application dated May 10, 1996 and May 26, 1998.

Description	Category
9A Cyclone	A-13
Trim Paper Cyclone	A-13

Pursuant to §26.304 of Regulation 26, the emission units, operations, or activities contained in Regulation 19, Appendix A, Group B, have been determined by the Department to be insignificant activities. Activities included in this list are allowable under this permit and need not be specifically identified.

SECTION VII: PLANTWIDE CONDITIONS

193. Pursuant to Section 19.704 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the Director shall be notified in writing within thirty (30) days after construction has commenced, construction is complete, the equipment and/or facility is first placed in operation, and the equipment and/or facility first reaches the target production rate.
194. Pursuant to Section 19.410(B) of Regulation 19, 40 CFR Part 52, Subpart E, the Director may cancel all or part of this permit if the construction or modification authorized herein is not begun within 18 months from the date of the permit issuance if the work involved in the construction or modification is suspended for a total of 18 months or more.
195. Pursuant to Section 19.702(E), 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, each emission point for which an emission test method is specified in this permit shall be tested in order to determine compliance with the emission limitations contained herein within sixty (60) days of achieving the maximum production rate, but in no event later than 180 days after initial start-up of the permitted source. The permittee shall notify the Department of the scheduled date of compliance testing at least fifteen (15) days in advance of such test. Two copies of the compliance test results shall be submitted to the Department within thirty (30) days after the completed testing. The permittee shall provide:
 - a. Sampling ports adequate for applicable test methods
 - b. Safe sampling platforms
 - c. Safe access to sampling platforms
 - d. Utilities for sampling and testing equipment
196. Pursuant to Section 19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, the equipment, control apparatus and emission monitoring equipment shall be operated within their design limitations and maintained in good condition at all times.
197. Pursuant to Regulation #26 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, this permit subsumes and incorporates all previously issued air permits for this facility.
198. Pursuant to §18.801 of Regulation #18, the permittee shall not cause or permit the emission of air contaminants, including odors or water vapor and including an air contaminant whose emission is not otherwise prohibited by Regulation #18, if the

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

emission of the air contaminant constitutes air pollution within the meaning of A.C.A. §8-4-303.

199. Pursuant to §18.901(A) of Regulation #18, the permittee shall not conduct operations in such a manner as to unnecessarily cause air contaminants and other pollutants from becoming airborne.

NESHAP Requirements:

200. Georgia-Pacific is subject to and shall comply with 40 CFR Part 61 Subpart M National Emission Standard for Asbestos. A copy of Subpart M is provided in Appendix E.
201. Georgia-Pacific is subject to and shall comply with 40 CFR Part 63 Subpart S National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry. A copy of Subpart S is provided in Appendix F.

Title VI Provisions:

202. The permittee shall comply with the standards for labeling of products using ozone depleting substances pursuant to 40 CFR Part 82, Subpart E:
- a. All containers containing a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
 - b. The placement of the required warning statement must comply with the requirements pursuant to §82.108.
 - c. The form of the label bearing the required warning must comply with the requirements pursuant to §82.110.
 - d. No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
203. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, excepts as provided for MVACs in Subpart B:
- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - c. Persons performing maintenance, service repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. (“MVAC-like appliance” as defined at §82.152.)
 - e. Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to §82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
204. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
205. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.
- The term “motor vehicle” as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term “MVAC” as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.
206. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program.

Permit Shield:

Georgia-Pacific Corporation - Crossett Paper Operations**Permit #: 597-AOP-R3****CSN #: 02-0013**

207. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements, as of the date of permit issuance, included in and specifically identified in item A of this condition:

- a. The following have been specifically identified as applicable requirements based upon the information submitted by the permittee in an application dated May 10, 1996 and May 26, 1998.

Source No.	Regulation	Description
Facility	Arkansas Regulation #19	Compilation of Regulations of the Arkansas State Implementation Plan for Air Pollution Control
Facility	Arkansas Regulation #26	Regulations of the Arkansas Operating Air Permits Program
Facility	40 CFR Part 60, Subpart A	New Source Performance Standards General Provisions
Facility	40 CFR Part 61, Subpart M	National Emissions Standards for Hazardous Air Pollutants
Facility	40 CFR Part 63, Subpart S	National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry
03	40 CFR Part 60, Subpart D except for §60.45(a)	New Source Performance Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971
03	40 CFR 52.21	Prevention of Significant Deterioration
25	40 CFR Part 60, Subpart BB	New Source Performance Standards for Kraft Pulp Mills
26	40 CFR Part 60, Subpart BB	New Source Performance Standards for Kraft Pulp Mills
26	40 CFR 52.21	Prevention of Significant Deterioration
27	40 CFR Part 60, Subpart BB	New Source Performance Standards for Kraft Pulp Mills
33	40 CFR Part 60, Subpart BB	New Source Performance Standards for Kraft Pulp Mills
40	40 CFR Part 60, Subpart Kb	New Source Performance Standards for Volatile Organic Liquid Storage Vessels
47	40 CFR 52.21	Prevention of Significant Deterioration
48	40 CFR 52.21	Prevention of Significant Deterioration
59	40 CFR Part 60, Subpart BB	New Source Performance Standards for Kraft Pulp Mills
60	40 CFR Part 60, Subpart BB except for §60.283(a)	New Source Performance Standards for Kraft Pulp Mills
79	40 CFR 52.21	Prevention of Significant Deterioration

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

Source No.	Regulation	Description
80	40 CFR 52.21	Prevention of Significant Deterioration
81	40 CFR 52.21	Prevention of Significant Deterioration
83	40 CFR Part 60, Subpart BB	New Source Performance Standards for Kraft Pulp Mills
83	40 CFR Part 63, Subpart S	National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry

- b. The following requirements have been specifically identified as not applicable based upon information submitted by the permittee in an application dated May 10, 1996 and May 26, 1998.

Source No.	Regulation	Description	Basis for Determination
03	40 CFR Part 60, Subpart Db	New Source Performance Standards for Industrial-Commercial-Institutional Steam Generating Units	Constructed prior to June 19, 1984
18	40 CFR Part 60, Subpart Db	New Source Performance Standards for Industrial-Commercial-Institutional Steam Generating Units	Constructed prior to 1984
19	40 CFR Part 60, Subpart D	New Source Performance Standards for Fossil-Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971	Constructed prior to 1971
19	40 CFR Part 60, Subpart Db	New Source Performance Standards for Industrial-Commercial-Institutional Steam Generating Units	Constructed prior to 1984
22	40 CFR Part 60, Subpart D	New Source Performance Standards for Fossil-Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971	Constructed prior to 1971
22	40 CFR Part 60, Subpart Db	New Source Performance Standards for Industrial-Commercial-Institutional Steam Generating Units	Constructed prior to 1984
34	40 CFR Part 60, Subpart BB	New Source Performance Standards for Kraft Pulp Mills	Constructed prior to 1976
61	40 CFR Part 60, Subpart BB	New Source Performance Standards for Kraft Pulp Mills	Constructed prior to 1976

- c. Nothing shall alter or affect the following:

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

Provisions of Section 303 of the Clean Air Act;

The liability of an owner or operator for any violation of applicable requirements prior to or at the time of issuance;

408(a) The applicable requirements of the acid rain program, consistent with Section of the Clean Air Act; or

Act. The ability of the EPA to obtain information under Section 114 of the Clean Air

SECTION VIII: GENERAL PROVISIONS

1. Pursuant to 40 C.F.R. 70.6(b)(2), any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation #18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq.*) as the origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation #18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq.*). Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation #18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq.*) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute.
2. Pursuant to 40 CFR 70.6(a)(2) and §26.7 of the Regulations of the Arkansas Operating Air Permit Program (Regulation #26), this permit shall be valid for a period of five (5) years beginning on the date this permit becomes effective and ending five (5) years later.
3. Pursuant to §26.4 of Regulation #26, it is the duty of the permittee to submit a complete application for permit renewal at least six (6) months prior to the date of permit expiration. Permit expiration terminates the permittee's right to operate unless a complete renewal application was submitted at least six (6) months prior to permit expiration, in which case the existing permit shall remain in effect until the Department takes final action on the renewal application. The Department will not necessarily notify the permittee when the permit renewal application is due.
4. Pursuant to 40 CFR 70.6(a)(1)(ii) and §26.7 of Regulation #26, where an applicable requirement of the Clean Air Act, as amended, 42 U.S.C. 7401, *et seq* (Act) is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions are incorporated into the permit and shall be enforceable by the Director or Administrator.
5. Pursuant to 40 CFR 70.6(a)(3)(ii)(A) and §26.7 of Regulation #26, records of monitoring information required by this permit shall include the following:
 - a. The date, place as defined in this permit, and time of sampling or measurements;
 - b. The date(s) analyses were performed;
 - c. The company or entity that performed the analyses;
 - d. The analytical techniques or methods used;
 - e. The results of such analyses; and

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

- f. The operating conditions as existing at the time of sampling or measurement.
- 6. Pursuant to 40 CFR 70.6(a)(3)(ii)(B) and §26.7 of Regulation #26, records of all required monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.
- 7. Pursuant to 40 C.F.R. 70.6(a)(3)(iii)(A) and §26.7 of Regulation #26, the permittee shall submit reports of all required monitoring every 6 months. If no other reporting period has been established, the reporting period shall end on the last day of the anniversary month of this permit. The report shall be due within 30 days of the end of the reporting period. Even though the reports are due every six months, each report shall contain a full year of data. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official as defined in §26.2 of Regulation #26 and must be sent to the address below.

Arkansas Department of Environmental Quality
Air Division
ATTN: Air Enforcement Branch
Post Office Box 8913
Little Rock, AR 72219

- 8. Pursuant to 40 CFR 70.6(a)(3)(iii)(B), §26.701(C)(3)(b) of Regulation #26, and §19.601 and 19.602 of Regulation #19, all deviations from permit requirements, including those attributable to upset conditions as defined in the permit shall be reported to the Department. An initial report shall be made to the Department by the next business day after the discovery of the occurrence. The initial report may be made by telephone and shall include:
 - a. The facility name and location,
 - b. The process unit or emission source which is deviating from the permit limit,
 - c. The permit limit, including the identification of pollutants, from which deviation occurs,
 - d. The date and time the deviation started,
 - e. The duration of the deviation,
 - f. The average emissions during the deviation,
 - g. The probable cause of such deviations,

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

- h. Any corrective actions or preventive measures taken or being taken to prevent such deviations in the future, and
- i. The name of the person submitting the report.

A full report shall be made in writing to the Department within five (5) business days of discovery of the occurrence and shall include in addition to the information required by initial report a schedule of actions to be taken to eliminate future occurrences and/or to minimize the amount by which the permits limits are exceeded and to reduce the length of time for which said limits are exceeded. If the permittee wishes, they may submit a full report in writing (by facsimile, overnight courier, or other means) within 24 hours of discovery of the occurrence and such report will serve as both the initial report and full report.

- 9. Pursuant to 40 C.F.R. 70.6(a)(5) and §26.7 of Regulation #26, and A.C.A. §8-4-203, as referenced by §8-4-304 and §8-4-311, if any provision of the permit or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications hereof which can be given effect without the invalid provision or application, and to this end, provisions of this Regulation are declared to be separable and severable.
- 10. Pursuant to 40 C.F.R. 70.6(a)(6)(i) and §26.7 of Regulation #26, the permittee must comply with all conditions of this Part 70 permit. Any permit noncompliance with applicable requirements as defined in Regulation #26 constitutes a violation of the Clean Air Act, as amended, 42 U.S.C. 7401, *et seq.* and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. Any permit noncompliance with a state requirement constitutes a violation of the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq.*) and is also grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.
- 11. Pursuant to 40 CFR 70.6(a)(6)(ii) and §26.7 of Regulation #26, it shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- 12. Pursuant to 40 CFR 70.6(a)(6)(iii) and §26.7 of Regulation #26, this permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

13. Pursuant to 40 CFR 70.6(a)(6)(iv) and §26.7 of Regulation #26, this permit does not convey any property rights of any sort, or any exclusive privilege.
14. Pursuant to 40 CFR 70.6(a)(6)(v) and §26.7 of Regulation #26, the permittee shall furnish to the Director, within the time specified by the Director, any information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Director copies of records required to be kept by the permit. For information claimed to be confidential, the permittee may be required to furnish such records directly to the Administrator along with a claim of confidentiality.
15. Pursuant to 40 CFR 70.6(a)(7) and §26.7 of Regulation #26, the permittee shall pay all permit fees in accordance with the procedures established in Regulation #9.
16. Pursuant to 40 CFR 70.6(a)(8) and §26.7 of Regulation #26, no permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for elsewhere in this permit.
17. Pursuant to 40 CFR 70.6(a)(9)(i) and §26.7 of Regulation #26, if the permittee is allowed to operate under different operating scenarios, the permittee shall, contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility a record of the scenario under which the facility or source is operating.
18. Pursuant to 40 CFR 70.6(b) and §26.7 of Regulation #26, all terms and conditions in this permit, including any provisions designed to limit a source's potential to emit, are enforceable by the Administrator and citizens under the Act unless the Department has specifically designated as not being federally enforceable under the Act any terms and conditions included in the permit that are not required under the Act or under any of its applicable requirements.
19. Pursuant to 40 CFR 70.6(c)(1) and §26.7 of Regulation #26, any document (including reports) required by this permit shall contain a certification by a responsible official as defined in §26.2 of Regulation #26.
20. Pursuant to 40 CFR 70.6(c)(2) and §26.7 of Regulation #26, the permittee shall allow an authorized representative of the Department, upon presentation of credentials, to perform the following:

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

- a. Enter upon the permittee's premises where the permitted source is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - d. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with this permit or applicable requirements.
21. Pursuant to 40 CFR 70.6(c)(5) and §26.7 of Regulation #26, the permittee shall submit a compliance certification with terms and conditions contained in the permit, including emission limitations, standards, or work practices. This compliance certification shall be submitted annually and shall be submitted to the Administrator as well as to the Department. All compliance certifications required by this permit shall include the following:
- a. The identification of each term or condition of the permit that is the basis of the certification;
 - b. The compliance status;
 - c. Whether compliance was continuous or intermittent;
 - d. The method(s) used for determining the compliance status of the source, currently and over the reporting period established by the monitoring requirements of this permit; and
 - e. Such other facts as the Department may require elsewhere in this permit or by §114(a)(3) and 504(b) of the Act.
22. Pursuant to §26.7 of Regulation #26, nothing in this permit shall alter or affect the following:
- a. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section;
 - b. The liability the permittee for any violation of applicable requirements prior to or at the time of permit issuance;
 - c. The applicable requirements of the acid rain program, consistent with §408(a) of the Act; or
 - d. The ability of EPA to obtain information from a source pursuant to §114 of the Act.

Georgia-Pacific Corporation - Crossett Paper Operations
Permit #: 597-AOP-R3
CSN #: 02-0013

23. Pursuant to A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, this permit authorizes only those pollutant emitting activities addressed herein.