

**AUTHORIZATION TO DISCHARGE WASTEWATER UNDER
THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM AND
THE ARKANSAS WATER AND AIR POLLUTION CONTROL ACT**

In accordance with the provisions of the Arkansas Water and Air Pollution Control Act (Act 472 of 1949, as amended, Ark. Code Ann. 8-4-101 et seq.), and the Clean Water Act (33 U.S.C. §1251 et seq.),

The applicant's facility and mailing address is:

Georgia-Pacific Crossett LLC
Crossett Paper Operations
100 Mill Supply Road
Crossett, AR 71635

is authorized to discharge from a facility located as follows: west on Hwy 82 from the paper mill, go 1 mile before turning left onto Texas Ave. Go 2 miles then turn right. Proceed until you come to a T in the road, noting where the primary clarifier is located in Ashley County, Arkansas.

Latitude: 33° 07' 34"; Longitude: 91° 59' 35"

The receiving waters named:

Outfall 001: the upper reaches of Mossy Lake, then into Coffee Creek, then into Ouachita River in Segment 2D of the Ouachita River Basin.

SMS 002: At the transition from Mossy Lake to Coffee Creek then into Ouachita River in Segment 2D of the Ouachita River Basin.

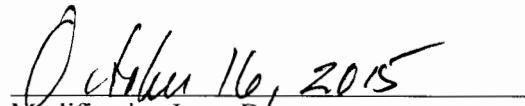
The outfalls are located at the following coordinates:

Outfall 001: Latitude : 33° 06' 22.55"; Longitude: 92° 02' 17.2"
SMS 002: Latitude : 33° 01' 58"; Longitude: 92° 04' 25"
Internal Outfall 101: Latitude : 33° 08' 29.5"; Longitude: 91° 58' 25.8"
Internal Outfall 102: Latitude : 33° 08' 29.5"; Longitude: 91° 58' 25.8"
Internal Outfall 103: Latitude : 33° 08' 29.5"; Longitude: 91° 58' 25.8"

Discharge shall be in accordance with effluent limitations, monitoring requirements, and other conditions set forth in this permit.

Original Effective Date: November 1, 2010
First Major Modification Effective Date: July 1, 2011
Second Major Modification Effective Date: October 30, 2015
Expiration Date: October 31, 2015


Ellen Carpenter
Chief, Water Division
Arkansas Department of Environmental Quality


Modification Issue Date

**PART I
 PERMIT REQUIREMENTS**

SECTION A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: OUTFALL 001 – process wastewater (Paper Mill, Plywood Plant, and Studmill operations), sanitary wastewater, landfill leachate, site stormwater¹, chemical plant, building products, treated effluent from the City of Crossett, truck wash, backwash wastewater, and product stewardship waters.

During the period beginning on the effective date of the second modification of this permit and lasting until the date of expiration, the permittee is authorized to discharge from Outfall 001. Such discharges shall be limited and monitored by the permittee as specified below.

<u>Effluent Characteristics</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	Mass (lbs/day, unless otherwise specified)		Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Avg.	Daily Max	Monthly Avg.	Daily Max		
Flow (MGD)	N/A	N/A	Report	Report	Daily	Totalizing Meter
Biochemical Oxygen Demand (BOD5)	24155.4	46453.0	64.4	123.8	Three/week	24-hr composite
Total Suspended Solids (TSS)	37720	70188	119.6	222.4	Three/week	24-hr composite
2,3,7,8-TCDD ⁴	Report	Report	Report pg/l	Report pg/l	Once/quarter	24-hr composite
Adsorbable Organic Halogens (AOX) ²	2146	3276	N/A	N/A	Three/week	24-hr composite
Dieldrin ⁵	0.00034	0.0011	0.00091 µg/l	0.00284 µg/l	Once/month	24-hr composite ⁶
Total Recoverable Copper ⁵	7.04	14.12	18.75 µg/l	37.62 µg/l	Once/month	24-hr composite ⁶
Total Recoverable Zinc ⁵	73.02	146.52	194.58 µg/l	390.41 µg/l	Once/month	24-hr composite ⁶
Total Phosphorus	Report	Report	Report	Report	Once/month	24-hr composite
Nitrates as Nitrogen	Report	Report	Report	Report	Once/month	24-hr composite
pH	N/A	N/A	<u>Minimum</u> 6.0 s.u.	<u>Maximum</u> 9.0 s.u.	Three/week	Grab
Chronic Whole Effluent Toxicity ³	N/A	N/A	N/A	N/A	Once/2 months	24-hr composite
<u>Pimephales promelas (Chronic)</u> Pass/Fail Lethality (7-day NOEC) TLP6C Pass/Fail Growth (7-day NOEC)TGP6C Survival (7-day NOEC) TOP6C Coefficient of Variation, Growth TQP6C Growth (7-day NOEC) TPP6C			<u>7-Day Average</u> Report (Pass=0/Fail=1) Report (Pass=0/Fail=1) Report % Report % Report %		once/2 months once/2 months once/2 months once/2 months once/2 months	24-hr composite 24-hr composite 24-hr composite 24-hr composite 24-hr composite
<u>Ceriodaphnia dubia (Chronic)</u> Pass/Fail Lethality (7-day NOEC) TLP3B Pass/Fail production (7-day NOEC)TGP3B Survival (7-day NOEC) TOP3B Coefficient of Variation, Reproduction TQP3B Reproduction (7-day NOEC) TPP3B			<u>7-Day Average</u> Report (Pass=0/Fail=1) Report (Pass=0/Fail=1) Report % Report % Report %		once/2 months once/2 months once/2 months once/2 months	24-hr composite 24-hr composite 24-hr composite 24-hr composite

1 See Condition Nos 9 and 16 of Part II (BMP Requirements).
 2 See Condition No. 8 of Part II (AOX Test Method).
 3 See Condition No. 15 of Part II (WET Testing Requirements).
 4 See Condition No. 7 of Part II (Dioxin Monitoring Requirements).
 5 See Condition No. 14 of Part II (Metals and Pesticides Test Methods). Monitoring is required only when **Mossy Lake is flooded**. A flooded state is defined as the period when the gauge at the Felsenthal Lock and Dam exceeds 62 feet and also for the two weeks following the recession of flood waters below 62 feet.
 6 The 24-hr composite sample may consist of four grab samples taken over 24 hours and flow weighted.

There shall be no discharge of distinctly visible solids, scum, or foam of a persistent nature, nor shall there be any formation of slime, bottom deposits, or sludge banks.

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge during the entire monitoring period. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at the Outfall 001, following the final treatment unit (aeration basin) at Latitude : 33E 06' 22.5"; Longitude: 92E 02' 17.2" before discharge to Mossy Lake.

**PART I
 PERMIT REQUIREMENTS**

SECTION A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: Stream Monitoring Station (SMS) 002 – At the Transition from Mossy Lake to Coffee Creek.

During the period beginning on the effective date of the second modification of this permit and lasting until the date of expiration, the permittee is authorized to discharge from serial number SMS 002. Such discharges shall be limited and monitored by the permittee as specified below.

<u>Effluent Characteristics</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u> ¹	
	Mass (lbs/day, unless otherwise specified)		Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Avg.	Daily Max	Monthly Avg.	Daily Max		
Flow (MGD)	N/A	N/A	Report	Report	Daily	Totalizing Meter
Biochemical Oxygen Demand (BOD5)						
October – July	8000	12000	Report	Report	Three/week	24-hr composite
August	7262	10893	Report	Report	Three/week	24-hr composite
September	5911	8867	Report	Report	Three/week	24-hr composite
Total Suspended Solids (TSS)	18000	30000	Report	Report	Three/week	24-hr composite
Dieldrin ²	0.00034	0.0011	0.00091 µg/l	0.00284 µg/l	Once/month	Grab
Total Recoverable Copper ²	7.04	14.12	18.75 µg/l	37.62 µg/l	Once/month	Grab
Total Recoverable Zinc ²	73.02	146.52	194.58 µg/l	390.41 µg/l	Once/month	Grab
Total Phosphorous	Report	Report	Report	Report	Once/month	24-hr composite
Nitrates as Nitrogen	Report	Report	Report	Report	Once/month	24-hr composite
Change in Receiving Stream Color ³	N/A	N/A	N/A	Report ³	Once/quarter	Grab
pH	N/A	N/A	<u>Minimum</u> 6.0 s.u.	<u>Maximum</u> 9.0 s.u.	Three/week	Grab

1 **When Mossy Lake is not flooded.** A flooded state is defined as the period when the gauge at the Felsenthal Lock and Dam exceeds 62 feet and also for the two weeks following the recession of flood waters below 62 feet.

2 See Condition No. 14 of Part II (Metals and Pesticides Test Methods).

3 See Condition No. 17 of Part II.

There shall be no discharge of distinctly visible solids, scum, or foam of a persistent nature, nor shall there be any formation of slime, bottom deposits, or sludge banks.

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge during the entire monitoring period. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at the SMS 002, after Mossy Lake and prior to Coffee Creek in the general area of the following coordinates: Latitude : 33E 01' 58"; Longitude: 92E 04' 25".

**PART I
 PERMIT REQUIREMENTS**

SECTION A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: Internal Outfall 101 – Line 1A of Hardwood Effluent.

During the period beginning on the effective date and lasting until the date of expiration, the permittee is authorized to discharge from internal Outfall 101. Such discharges shall be limited and monitored by the permittee as specified below.

<u>Effluent Characteristics</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	Mass (lbs/day, unless otherwise specified)		Concentration (µg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Avg.	Daily Max	Monthly Avg.	Daily Max		
Flow (MGD)	N/A	N/A	Report	Report	Daily	Instantaneous
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) ¹	N/A	N/A	N/A	<10 pg/l	Once/quarter	24-hr composite
2,3,7,8-Tetrachlorodebenzofuran (TCDF) ¹	N/A	N/A	N/A	31.9 pg/l	Once/quarter	24-hr composite
Trichlorosyringol ¹	N/A	N/A	N/A	<2.5	Once/quarter	24-hr composite
3,4,5-Trichlorocatechol ¹	N/A	N/A	N/A	<5.0	Once/quarter	24-hr composite
3,4,6-Trichlorocatechol ¹	N/A	N/A	N/A	<5.0	Once/quarter	24-hr composite
3,4,5-Trichloroguaiacol ¹	N/A	N/A	N/A	<2.5	Once/quarter	24-hr composite
3,4,6-Trichloroguaiacol ¹	N/A	N/A	N/A	<2.5	Once/quarter	24-hr composite
4,5,6-Trichloroguaiacol ¹	N/A	N/A	N/A	<2.5	Once/quarter	24-hr composite
2,4,5-Trichlorophenol ¹	N/A	N/A	N/A	<2.5	Once/quarter	24-hr composite
2,4,6-Trichlorophenol ¹	N/A	N/A	N/A	<2.5	Once/quarter	24-hr composite
Tetrachlorocatechol ¹	N/A	N/A	N/A	<5.0	Once/quarter	24-hr composite
Tetrachloroguaiacol ¹	N/A	N/A	N/A	<5.0	Once/quarter	24-hr composite
2,3,4,6-Tetrachlorophenol ¹	N/A	N/A	N/A	<2.5	Once/quarter	24-hr composite
Pentachlorophenol ¹	N/A	N/A	N/A	<5.0	Once/quarter	24-hr composite
Chloroform	4.78	7.99	Report	Report	Once/2 months	24-hr composite

¹ See Condition No. 8 of Part II (Test Method Requirements).

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge during the entire monitoring period. Samples taken in compliance with monitoring requirements specified above shall be taken at the following location(s): internal outfall 101 (Line 1A – Hardwood) at Latitude : 33E 08' 29.5"; Longitude: 91E 58' 25.8" and prior to commingling with other waste streams.

**PART I
 PERMIT REQUIREMENTS**

SECTION A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: Internal Outfall 102 – Line 1B of Hardwood Effluent.

During the period beginning on the effective date and lasting until the date of expiration, the permittee is authorized to discharge from internal Outfall 102. Such discharges shall be limited and monitored by the permittee as specified below.

<u>Effluent Characteristics</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	Mass (lbs/day, unless otherwise specified)		Concentration (µg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Avg.	Daily Max	Monthly Avg.	Daily Max		
Flow (MGD)+	N/A	N/A	Report	Report	Daily	Instantaneous
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) ¹	N/A	N/A	N/A	<10 pg/l	Once/quarter	24-hr composite
2,3,7,8-Tetrachlorodebenzofuran (TCDF) ¹	N/A	N/A	N/A	31.9 pg/l	Once/quarter	24-hr composite
Trichlorosyringol ¹	N/A	N/A	N/A	<2.5	Once/quarter	24-hr composite
3,4,5-Trichlorocatechol ¹	N/A	N/A	N/A	<5.0	Once/quarter	24-hr composite
3,4,6-Trichlorocatechol ¹	N/A	N/A	N/A	<5.0	Once/quarter	24-hr composite
3,4,5-Trichloroguaiacol ¹	N/A	N/A	N/A	<2.5	Once/quarter	24-hr composite
3,4,6-Trichloroguaiacol ¹	N/A	N/A	N/A	<2.5	Once/quarter	24-hr composite
4,5,6-Trichloroguaiacol ¹	N/A	N/A	N/A	<2.5	Once/quarter	24-hr composite
2,4,5-Trichlorophenol ¹	N/A	N/A	N/A	<2.5	Once/quarter	24-hr composite
2,4,6-Trichlorophenol ¹	N/A	N/A	N/A	<2.5	Once/quarter	24-hr composite
Tetrachlorocatechol ¹	N/A	N/A	N/A	<5.0	Once/quarter	24-hr composite
Tetrachloroguaiacol ¹	N/A	N/A	N/A	<5.0	Once/quarter	24-hr composite
2,3,4,6-Tetrachlorophenol ¹	N/A	N/A	N/A	<2.5	Once/quarter	24-hr composite
Pentachlorophenol ¹	N/A	N/A	N/A	<5.0	Once/quarter	24-hr composite
Chloroform	4.78	7.99	Report	Report	Once/2 months	24-hr composite

¹ See Condition No. 8 of Part II (Test Method Requirements).

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge during the entire monitoring period. Samples taken in compliance with monitoring requirements specified above shall be taken at the following location(s): internal outfall 102 (Line 1B – Hardwood) at Latitude : 33E 08' 29.5"; Longitude: 91E 58' 25.8" and prior to commingling with other waste streams.

**PART I
 PERMIT REQUIREMENTS**

SECTION A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: Internal Outfall 103 – Line 2 of Softwood Effluent.

During the period beginning on the effective date and lasting until the date of expiration, the permittee is authorized to discharge from internal Outfall 103. Such discharges shall be limited and monitored by the permittee as specified below.

<u>Effluent Characteristics</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	Mass (lbs/day, unless otherwise specified)		Concentration (µg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Avg.	Daily Max	Monthly Avg.	Daily Max		
Flow (MGD)+	N/A	N/A	Report	Report	Daily	Instantaneous
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) ¹	N/A	N/A	N/A	<10 pg/l	Once/quarter	24-hr composite
2,3,7,8-Tetrachlorodebenzofuran (TCDF) ¹	N/A	N/A	N/A	31.9 pg/l	Once/quarter	24-hr composite
Trichlorosyringol ¹	N/A	N/A	N/A	<2.5	Once/quarter	24-hr composite
3,4,5-Trichlorocatechol ¹	N/A	N/A	N/A	<5.0	Once/quarter	24-hr composite
3,4,6-Trichlorocatechol ¹	N/A	N/A	N/A	<5.0	Once/quarter	24-hr composite
3,4,5-Trichloroguaiacol ¹	N/A	N/A	N/A	<2.5	Once/quarter	24-hr composite
3,4,6-Trichloroguaiacol ¹	N/A	N/A	N/A	<2.5	Once/quarter	24-hr composite
4,5,6-Trichloroguaiacol ¹	N/A	N/A	N/A	<2.5	Once/quarter	24-hr composite
2,4,5-Trichlorophenol ¹	N/A	N/A	N/A	<2.5	Once/quarter	24-hr composite
2,4,6-Trichlorophenol ¹	N/A	N/A	N/A	<2.5	Once/quarter	24-hr composite
Tetrachlorocatechol ¹	N/A	N/A	N/A	<5.0	Once/quarter	24-hr composite
Tetrachloroguaiacol ¹	N/A	N/A	N/A	<5.0	Once/quarter	24-hr composite
2,3,4,6-Tetrachlorophenol ¹	N/A	N/A	N/A	<2.5	Once/quarter	24-hr composite
Pentachlorophenol ¹	N/A	N/A	N/A	<5.0	Once/quarter	24-hr composite
Chloroform	4.81	8.04	Report	Report	Once/2 months	24-hr composite

¹ See Condition No. 8 of Part II (Test Method Requirements).

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge during the entire monitoring period. Samples taken in compliance with monitoring requirements specified above shall be taken at the following location(s): internal outfall 103 (Line 2 – Softwood) at Latitude : 33E 08' 29.5"; Longitude: 91E 58' 25.8" and prior to commingling with other waste streams.

SECTION B. PERMIT COMPLIANCE

The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:

Compliance is required on the effective date of the permit.

1. The report required by Condition No. 9 of Part II of this permit shall be submitted no later than May 31 of each year.

PART II OTHER CONDITIONS

1. The operator of this wastewater treatment facility shall hold an Advanced Industrial license from the State of Arkansas in accordance with Act 1103 of 1991, Act 556 of 1993, Act 211 of 1971, and Regulation No. 3, as amended.
2. In accordance with 40 CFR Parts 122.62 (a)(2) and 124.5, this permit may be reopened for modification or revocation and/or reissuance to require additional monitoring and/or effluent limitations when new information is received that actual or potential exceedance of State water quality criteria and/or narrative criteria are determined to be the result of the permittee's discharge(s) to a relevant water body, or a Total Maximum Daily Load (TMDL) is established or revised for the water body that was not available at the time of the permit issuance that would have justified the application of different permit conditions at the time of permit issuance.
3. Other Specified Monitoring Requirements

The permittee may use alternative appropriate monitoring methods and analytical instruments other than as specified in Part I Section A of the permit without a major permit modification under the following conditions:

- The monitoring and analytical instruments are consistent with accepted scientific practices;
- The requests shall be submitted in writing to the Permits Section of the ADEQ Water Division for use of the alternate method or instrument.
- The method and/or instrument is in compliance with 40 CFR Part 136 or approved by the Director; and
- All associated devices are installed, calibrated and maintained to insure the accuracy of the measurements and are consistent with the accepted capability of that type of device. The calibration and maintenance shall be performed as part of the permittee's laboratory Quality Control/Quality Assurance program.

Upon written approval of the alternative monitoring method and/or analytical instruments, these methods or instruments must be consistently utilized throughout the monitoring period. ADEQ must be notified in writing and the permittee must receive written approval from ADEQ if the permittee decides to return to the original permit monitoring requirements.

4. The permittee has certified no chlorophenolic biocides are currently used. Any anticipated use of these biocides will require notification to ADEQ as specified in 40 CFR 122.61(a).

5. The Department has an MSDS on file for the nutrient blend (MacroGro GPC-30 Wastewater Nutrient Blend) which lists the Nitrogen content as 15 – 27% as N by weight and the Phosphorous content as 3 – 15% as P₂O₅ by weight. The permittee must receive written permission from the Department prior to changing the nutrient blend added to the treatment process for biological activity if the change causes the Nitrogen or Phosphorous to be outside of the listed range.
6. The permittee has certified zinc hydrosulfite is not used in the bleaching process. Any anticipated use of zinc hydrosulfite will require notification to ADEQ as specified in 40 CFR 122.61(a).
7. Dioxin Monitoring Requirements

For compliance purposes, the minimum quantification levels (MQLs) listed below or lower detection levels (DL) shall be used for monthly average and daily maximum effluent concentrations, as applicable, for listed pollutants. Test results which are less than the respective MQL or DL may be reported as 'zero'.

Pollutant	EPA Method	ML (Fg/l)
2,3,7,8 - TCDD	1613 or latest	0.00001 or lower

8. In accordance with 40 CFR 430.01(i) the following EPA Methods must be utilized when testing bleach plant effluent as specified for Internal Outfalls 101,102, and 103.

Pollutant	EPA Method
2,3,7,8-TCDD	1613
2,3,7,8-TCDF	1613
Trichlorosyringol	1653
3,4,5-Trichlorocatechol	1653
3,4,6-Trichlorocatechol	1653
3,4,6-Trichloroguaiacol	1653
4,5,6-Trichloroguaiacol	1653
2,4,5-Trichlorophenol	1653
Tetrachlorocatechol	1653
Tetarachloroguaiacol	1653

Pollutant	EPA Method
2,3,4,6-Tetrachlorophenol	1653
Pentachlorophenol	1653
AOX	1650

9. Specific Conditions Related to Best Management Practices Conditions

The permittee has performed all actions required by 40 CFR 430.03(j) within the time frames specified in that regulation.

The Permittee shall make the BMP Plan available at the facility for inspection by a representative of the ADEQ. The BMP Plan must contain all information outlined in 40 CFR 430.03(d) and demonstrate that the requirements of 40 CFR 430.03(c) have been implemented.

No later than May 31 of each year, the Permittee shall submit a report to the ADEQ indicating the BMP monitoring results, action level exceedances and corrective actions taken to respond to any exceedances. Exceedances are not violations of the permit. Failure to take appropriate action as soon as practicable is a permit violation. This report must contain all of the information outlined in 40 CFR 430.03(i)(4). The time frame to be covered by the report is the previous calendar year.

The Permittee shall maintain the records specified in 40 CFR 430.03(g) for a minimum of three years.

10. Permit Conditions for Accepting City of Crossett Wastewater

Georgia-Pacific and the City of Crossett must maintain the agreement for the discharge of the City's treated effluent into G-P's wastewater treatment system. The agreement must continue to state that the City will have a Pretreatment Program meeting applicable parts of 40 CFR 403, and the agreement will establish treatment standards for BOD₅ and TSS for the City's treated effluent that are submitted to and approved by the ADEQ. The agreement must also continue to address the notifications that the City must provide to G-P and the ADEQ in the event of potential changes in its discharge due to new significant dischargers, or changes in their wastewater characteristics. The agreement with the City of Crossett must continue to stipulate that monitoring records of the City's flow, BOD₅ and TSS will be maintained by the city for a minimum of three years to ascertain compliance with the Agreement.

11. Fish Tissue Analysis Condition

The permittee shall continue to assess the levels of 2,3,7,8 TCDD in ambient fish tissue in the receiving stream.

A. Stations:

(Outfall) - Between the confluence of Coffee Creek & the Ouachita River and the Louisiana state line

(Background) - Upstream of Felsenthal Lock and Dam

B. Species of fish to collect

The facility shall collect a minimum of three predator species and a minimum of three bottom feeder species from each station. Any combination of the following is acceptable.

Buffalo, Blue catfish, Flathead catfish, Crappie, or Bass

C. Sampling time

Sampling is allowed at any time during the year. Monitoring results shall be submitted on an annual basis to the ADEQ within 30 days of the completion of sampling and analysis.

D. Test Frequency

Testing shall be done once during the permit cycle. This testing must be conducted during the third year of the permit cycle. The Department reserves the right to require more additional tests if the testing yields greater than 5.33 ppt of 2,3,7,8 TCDD. This is required only at the Outfall station.

E. Method of Analysis

Edible fish fillet samples shall be analyzed and reported for 2,3,7,8 TCDD. The method of analysis shall be in accordance with the latest approved procedure of Method 1613.

12. General Condition for Plant Operations

In addition to the normal wastewater discharge, this NPDES permit authorizes discharges associated with or resulting during essential maintenance, regularly scheduled maintenance, during startup and shutdown, spills and release (whether anticipated or unanticipated) from anywhere in the permitted facility, as long as they are amenable to treatment, routed to the plant's wastewater treatment system and effluent limitations are met. In addition, discharges that are necessary to prevent loss of life, personal injury or severe property damage, as long as there are no feasible alternatives available, are also authorized by this permit, so long as effluent limitations are met.

13. The permittee must continue to use no elemental chlorine on any of the bleaching lines. This requirement is based on 40 CFR 430.02(f)(4).
14. The permittee may use any EPA approved method based on 40 CFR Part 136 provided the MQL for the chosen method is equal to or less than what has been specified in chart below:

Pollutant	MQL (µg/l)
Total Recoverable Copper	0.5
Total Recoverable Mercury	0.005
Total Recoverable Zinc	20
Dieldrin	0.02

The permittee may develop a matrix specific method detection limit (MDL) in accordance with Appendix B of 40 CFR Part 136. For any pollutant for which the permittee determines a site specific MDL, the permittee shall send to ADEQ, NPDES Permits Branch, a report containing QA/QC documentation, analytical results, and calculations necessary to demonstrate that a site specific MDL was correctly calculated. A site specific minimum quantification level (MQL) shall be determined in accordance with the following calculation:

$$\text{MQL} = 3.3 \times \text{MDL}$$

Upon written approval by Permits Branch, the site specific MQL may be utilized by the permittee for all future Discharge Monitoring Report (DMR) calculations and reporting requirements.

If Dieldrin is not detected at Outfall 001 and SMS 002 during the interim period of this permit, the final Dieldrin limits will be removed from the permit through a major modification. The permittee must request the removal at least six months prior to the effective date of the final permit limit.

15. WHOLE EFFLUENT TOXICITY LIMITS (7-DAY CHRONIC NOEC FRESHWATER)

1. SCOPE AND METHODOLOGY

- a. The permittee shall test the effluent for toxicity in accordance with the provisions in this section.

APPLICABLE TO FINAL OUTFALL(S): 001

REPORTED ON DMR AS FINAL OUTFALL: 001

CRITICAL DILUTION (%): 80%

EFFLUENT DILUTION SERIES (%): 25%, 34%, 45%, 60%, & 80%

TESTING FREQUENCY: once/2 months

COMPOSITE SAMPLE TYPE: Defined at PART I

TEST SPECIES/METHODS: 40 CFR Part 136

Ceriodaphnia dubia chronic static renewal survival and reproduction test, Method 1002.0, EPA-821-R-02-013, or the most recent update thereof. This test should be terminated when 60% of the surviving females in the control produce three broods or at the end of eight days, whichever comes first.

Pimephales promelas (Fathead minnow) chronic static renewal 7-day larval survival and growth test, Method 1000.0, EPA-821-R-02-013, or the most recent update thereof. A minimum of five (5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test.

- b. The NOEC (No Observed Effect Concentration) is herein defined as the greatest effluent dilution at and below which toxicity (lethal or sub-lethal) that is statistically different from the control (0% effluent) at the 95% confidence level does not occur. Chronic lethal test failure is defined as a demonstration of a statistically significant lethal effect at test completion to a test species at or below the critical dilution. Chronic sub-lethal test failure is defined as a demonstration of a statistically significant sub-lethal effect (i.e., growth or reproduction) at test completion to a test species at or below the critical dilution.
- c. This permit may be reopened to require whole effluent toxicity limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

2. PERSISTENT LETHAL and/or SUB-LETHAL EFFECTS

The requirements of this subsection apply only when a toxicity test demonstrates significant lethal and/or sub-lethal effects at or below the critical dilution. The purpose of additional tests (also referred to as 'retests' or confirmation tests) is to determine the duration of a toxic event. A test that meets all test acceptability criteria and demonstrates significant toxic effects does not need additional confirmation. Such testing cannot confirm or disprove a previous test result.

If any valid test demonstrates significant lethal or sub-lethal effects to a test species at or below the critical dilution, the frequency of testing for that species is automatically increased to once per quarter for the life of the permit. In addition:

a. Part I Testing Frequency Other Than Monthly

- i. The permittee shall conduct a total of three (3) additional tests for any species that demonstrates significant toxic effects at or below the critical dilution. The additional tests shall be conducted monthly during the next three consecutive months. If testing on a quarterly basis, the permittee may substitute one of the additional tests in lieu of one routine toxicity test. A full report shall be prepared for each test required by this section in accordance with procedures outlined in Item 4 of this section and submitted with the period discharge monitoring report (DMR) to the permitting authority for review.
- ii. **IF LETHAL EFFECTS HAVE BEEN DEMONSTRATED** If any of the additional tests demonstrates significant lethal effects at or below the critical dilution, the permittee shall initiate Toxicity Reduction Evaluation (TRE) requirements as specified in Item 5 of this section. The permittee shall notify ADEQ in writing within 5 days *of notification* of the failure of any retest, and the TRE initiation date will be the test completion date of the first failed retest. A TRE may also be required due to a demonstration of intermittent lethal effects at or below the critical dilution, or for failure to perform the required retests. A TRE required based on lethal effects should consider any sub-lethal effects as well.
- iii. **IF SUB-LETHAL EFFECTS ONLY HAVE BEEN DEMONSTRATED** If any two of the three additional tests demonstrates significant sub-lethal effects at 75% effluent or lower, the permittee shall initiate the Sub-Lethal Toxicity Reduction Evaluation (TRE_{SL}) requirements as specified in Item 5 of this section. The permittee shall notify ADEQ in writing within 5 days *of notification* of the failure of any retest, and the Sub-Lethal Effects TRE initiation date will be the test completion date of the first failed retest. A TRE may be also be required for failure to perform the required retests.

iv. The provisions of Item 2.a.i. are suspended upon submittal of the TRE Action Plan.

b. Part I Testing Frequency of Monthly

The permittee shall initiate the Toxicity Reduction Evaluation (TRE) requirements as specified in Item 5 of this section when any two of three consecutive monthly toxicity tests exhibit significant toxic effects at or below the critical dilution. A TRE may also be required due to a demonstration of intermittent lethal and/or sub-lethal effects at or below the critical dilution, or for failure to perform the required retests.

3. REQUIRED TOXICITY TESTING CONDITIONS

a. Test Acceptance

The permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and quality assurance requirements defined in the test methods or in this permit are not satisfied, including the following additional criteria:

- i. The toxicity test control (0% effluent) must have survival equal to or greater than 80%.
- ii. The mean number of Ceriodaphnia dubia neonates produced per surviving female in the control (0% effluent) must be 15 or more.
- iii. 60% of the surviving control females must produce three broods. The mean dry weight of surviving Fathead minnow larvae at the end of the 7 days in the control (0% effluent) must be 0.25 mg per larva or greater.
- iv. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for: the young of surviving females in the Ceriodaphnia dubia reproduction test; the growth and survival endpoints of the Fathead minnow test.
- v. The percent coefficient of variation between replicates shall be 40% or less in the critical dilution, unless significant lethal or sub-lethal effects are exhibited for: the young of surviving females in the Ceriodaphnia dubia reproduction test; the growth and survival endpoints of the Fathead minnow test.
- vi. If a test passes, yet the percent coefficient of variation between replicates is greater than 40% in the control (0% effluent) and/or in the critical dilution for: the young of surviving females in the Ceriodaphnia dubia reproduction test; the growth and survival endpoints of the Fathead minnow test, the test is determined to be invalid. A repeat test shall be conducted within the required reporting period of any test determined to be invalid.

- vii. If a test fails, test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%.
- viii. A Percent Minimum Significant Difference (PMSD) range of 13 - 47 for Ceriodaphnia dubia reproduction;
- ix. A PMSD range of 12 - 30 for Fathead minnow growth.

b. Statistical Interpretation

- i. For the Ceriodaphnia dubia survival test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be Fisher's Exact Test as described in EPA/821/R-02-013 or the most recent update thereof.
- ii. For the Ceriodaphnia dubia reproduction test and the Fathead minnow larval survival and growth test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be in accordance with the methods for determining the No Observed Effect Concentration (NOEC) as described in EPA/821/R-02-013 or the most recent update thereof.
- iii. If the conditions of Test Acceptability are met in Item 3.a above and the percent survival of the test organism is equal to or greater than 80% in the critical dilution concentration and all lower dilution concentrations, the test shall be considered to be a passing test, and the permittee shall report a survival NOEC of not less than the critical dilution for the DMR reporting requirements found in Item 4 below.

c. Dilution Water

- i. Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness, and alkalinity to the closest downstream perennial water for:
 - (A) toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and
 - (B) toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.

- ii. If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of Item 3.a), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:
 - (A) a synthetic dilution water control which fulfills the test acceptance requirements of Item 3.a was run concurrently with the receiving water control;
 - (B) the test indicating receiving water toxicity has been carried out to completion (i.e., 7 days);
 - (C) the permittee includes all test results indicating receiving water toxicity with the full report and information required by Item 4 below; and
 - (D) the synthetic dilution water shall have a pH, hardness, and alkalinity similar to that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these parameters will not cause toxicity in the synthetic dilution water.

d. Samples and Composites

- i. The permittee shall collect a minimum of three flow-weighted composite samples from the outfall(s) listed at Item 1.a above. Unless otherwise stated in this section, a composite sample for WET shall consist of 12 subsamples gathered at equal time intervals during a 24-hour period.
- ii. The permittee shall collect second and third composite samples for use during 24-hour renewals of each dilution concentration for each test. The permittee must collect the composite samples such that the effluent samples, on use, are representative of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on a regular or intermittent basis.
- iii. The permittee must collect all three flow-weighted composite samples within the monitoring period. Second and/or third composite samples shall not be collected into the next monitoring period; such tests will be determined to be invalid. Monitoring period definitions are listed in Part IV.
- iv. The permittee must collect the composite samples so that the maximum holding time for any effluent sample shall not exceed 72 hours. The permittee must have initiated the toxicity test within 36 hours after the collection of the last portion of the first composite sample. Samples shall be chilled to 6 degrees Centigrade during collection, shipping, and/or storage.

- v. If the flow from the outfall(s) being tested ceases during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions and the sample holding time are waived during that sampling period. However, the permittee must have collected an effluent composite sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The effluent composite sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report required in Item 4 of this section.
- vi. MULTIPLE OUTFALLS: If the provisions of this section are applicable to multiple outfalls, the permittee shall combine the composite effluent samples in proportion to the average flow from the outfalls listed in item 1.a. above for the day the sample was collected. The permittee shall perform the toxicity test on the flow-weighted composite of the outfall samples.
- vii. The permittee shall not allow the sample to be dechlorinated at the laboratory. At the time of sample collection the permittee shall measure the TRC of the effluent. The measured concentration of TRC for each sample shall be included in the lab report submitted by the permittee.

4. REPORTING

- a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this section in accordance with the Report Preparation Section of EPA/821/R-02-013, or the most current publication, for every valid or invalid toxicity test initiated whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of PART III.C.7 of this permit. The permittee shall submit full reports. For any test which fails, is considered invalid or which is terminated early for any reason, the full report must be submitted for agency review.
- b. A valid test for each species must be reported on the DMR during each reporting period specified in PART I of this permit unless the permittee is performing a TRE which may increase the frequency of testing and reporting. Only ONE set of WET test data for each species is to be recorded on the DMR for each reporting period. The data submitted should reflect the LOWEST lethal and sub-lethal effects results for each species during the reporting period. The full reports for all invalid tests, repeat tests (for invalid tests), and retests (for tests previously failed) performed during the reporting period must be attached to the DMR for Agency review.

c. The permittee shall submit the results of each valid toxicity test on the subsequent monthly DMR for that reporting period in accordance with PART III.D.4 of this permit, as follows below. Submit retest information clearly marked as such with the following month's DMR. Only results of valid tests are to be reported on the DMR.

i. Pimephales promelas (Fathead minnow)

(A) If the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, enter a '1'; otherwise, enter a '0' for Parameter No. TLP6C

(B) Report the NOEC value for survival, Parameter No. TOP6C

(C) Report the NOEC value for growth, Parameter No. TPP6C

(D) If the NOEC for growth is less than the critical dilution, enter a '1'; otherwise, enter a '0' for Parameter No. TGP6C

(E) Report the highest (critical dilution or control) Coefficient of Variation for growth, Parameter No. TQP6C

ii. Ceriodaphnia dubia

(A) If the NOEC for survival is less than the critical dilution, enter a '1'; otherwise, enter a '0' for Parameter No. TLP3B

(B) Report the NOEC value for survival, Parameter No. TOP3B

(C) Report the NOEC value for reproduction, Parameter No. TPP3B

(D) If the NOEC for reproduction is less than the critical dilution, enter a '1'; otherwise, enter a '0' for Parameter No. TGP3B

(E) Report the higher (critical dilution or control) Coefficient of Variation for reproduction, Parameter No. TQP3B

5. TOXICITY REDUCTION EVALUATIONS (TREs)

TREs for lethal and sub-lethal effects are performed in a very similar manner. EPA Region 6 is currently addressing TREs as follows: a sub-lethal TRE (TRE_{SL}) is triggered based on three sub-lethal test failures while a lethal effects TRE (TRE_L) is triggered based on only two test failures for lethality. In addition, EPA Region 6 will consider the magnitude of toxicity and use flexibility when considering a TRE_{SL} where there are no effects at effluent dilutions of less than 76% effluent.

- a. Within ninety (90) days of confirming persistent toxicity, the permittee shall submit a Toxicity Reduction Evaluation (TRE) Action Plan and Schedule for conducting a TRE. The TRE Action Plan shall specify the approach and methodology to be used in performing the TRE. A Toxicity Reduction Evaluation is an investigation intended to determine those actions necessary to achieve compliance with water quality-based effluent limits by reducing an effluent's toxicity to an acceptable level. A TRE is defined as a step-wise process which combines toxicity testing and analyses of the physical and chemical characteristics of a toxic effluent to identify the constituents causing effluent toxicity and/or treatment methods which will reduce the effluent toxicity. The goal of the TRE is to maximally reduce the toxic effects of effluent at the critical dilution and includes the following:
- i. **Specific Activities.** The plan shall detail the specific approach the permittee intends to utilize in conducting the TRE. The approach may include toxicity characterizations, identifications and confirmation activities, source evaluation, treatability studies, or alternative approaches. When the permittee conducts Toxicity Characterization Procedures the permittee shall perform multiple characterizations and follow the procedures specified in the documents 'Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures' (EPA-600/6-91/003) and 'Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I' (EPA-600/6-91/005F), or alternate procedures. When the permittee conducts Toxicity Identification Evaluations and Confirmations, the permittee shall perform multiple identifications and follow the methods specified in the documents 'Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity' (EPA/600/R-92/080) and 'Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity' (EPA/600/R-92/081), as appropriate.

The documents referenced above may be obtained through the National Technical Information Service (NTIS) by phone at (703) 487-4650, or by writing:

U.S. Department of Commerce
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

- ii. **Sampling Plan** (e.g., locations, methods, holding times, chain of custody, preservation, etc.). The effluent sample volume collected for all tests shall be adequate to perform the toxicity test, toxicity characterization, identification and

confirmation procedures, and conduct chemical specific analyses when a probable toxicant has been identified;

Where the permittee has identified or suspects specific pollutant(s) and/or source(s) of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical specific analyses for the identified and/or suspected pollutant(s) and/or source(s) of effluent toxicity. Where lethality was demonstrated within 48 hours of test initiation, each composite sample shall be analyzed independently. Otherwise the permittee may substitute a composite sample, comprised of equal portions of the individual composite samples, for the chemical specific analysis;

- iii. Quality Assurance Plan (e.g., QA/QC implementation, corrective actions, etc.); and
 - iv. Project Organization (e.g., project staff, project manager, consulting services, etc.).
- c. The permittee shall initiate the TRE Action Plan within thirty (30) days of plan and schedule submittal. The permittee shall assume all risks for failure to achieve the required toxicity reduction.
- d. The permittee shall submit a quarterly TRE Activities Report, with the Discharge Monitoring Report in the months of January, April, July and October, containing information on toxicity reduction evaluation activities including:
- i. any data and/or substantiating documentation which identifies the pollutant(s) and/or source(s) of effluent toxicity;
 - ii. any studies/evaluations and results on the treatability of the facility's effluent toxicity; and
 - iii. any data which identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant toxicity at the critical dilution.

A copy of the TRE Activities Report shall also be submitted to the state agency.

- e. The permittee shall submit a Final Report on Toxicity Reduction Evaluation Activities no later than twenty-eight (28) months from confirming toxicity in the retests, which provides information pertaining to the specific control mechanism selected that will, when implemented, result in reduction of effluent toxicity to no significant toxicity at the critical dilution. The report will also provide a specific corrective action schedule for implementing the selected control mechanism.

A copy of the Final Report on Toxicity Reduction Evaluation Activities shall also be submitted to the state agency.

- f. Quarterly testing during the TRE is a minimum monitoring requirement. EPA recommends that permittees required to perform a TRE not rely on quarterly testing alone to ensure success in the TRE, and that additional screening tests be performed to capture toxic samples for identification of toxicants. Failure to identify the specific chemical compound causing toxicity test failure will normally result in a permit limit for whole effluent toxicity limits per federal regulations at 40 CFR 122.44(d)(1)(v).

6. MONITORING FREQUENCY REDUCTION

- a. The permittee may apply for a testing frequency reduction upon the successful completion of the first four consecutive quarters (in accordance with Item 1.a.) of testing for *P. promelas*, with no lethal or sub-lethal effects demonstrated at or below the critical dilution. If granted, the monitoring frequency for *P. promelas* may be reduced to not less than twice per year.
- b. The permittee may apply for a testing frequency reduction upon the successful completion of the first six consecutive WET tests (in accordance with Item 1.a.) for *C. dubia*, with no lethal or sub-lethal effects demonstrated at or below the critical dilution. If granted, the monitoring frequency for *C. dubia* may be reduced to not less than once per quarter. Additionally, if a WET frequency reduction of quarterly was granted, the permittee may apply for a second testing frequency reduction upon the successful completion of the first four consecutive quarters of testing for *C. dubia*, with no lethal or sub-lethal effects demonstrated at or below the critical dilution. If granted, the monitoring frequency for *C. dubia* may be reduced to not less than twice per year.
- c. CERTIFICATION - The permittee must certify in writing that no test failures have occurred and that all tests meet all test acceptability criteria in item 3.a. above. In addition the permittee must provide a list with each test performed including test initiation date, species, NOECs for lethal and sub-lethal effects and the maximum coefficient of variation for the controls. Upon review and acceptance of this information the agency will issue a letter of confirmation of the monitoring frequency reduction. A copy of the letter will be forwarded to the agency's Permit Compliance System section to update the permit reporting requirements.
- d. SUB-LETHAL OR SURVIVAL FAILURES - If any test fails the survival or sub-lethal endpoint at any time during the life of this permit, three monthly retests are required and the monitoring frequency for the affected test species shall be increased to once per quarter until the permit is re-issued. Monthly retesting is not required if the permittee is performing a TRE.

Any monitoring frequency reduction granted applies only until the expiration date of this permit, at which time the monitoring frequency for both test species reverts to once per quarter until the permit is re-issued.

16. Stormwater runoff commingling with other process waster discharged from Outfall 001 shall be managed in accordance with the Best Management Practices (BMPs) in the form of a stormwater pollution prevention plan (SWPPP) to control the quality of stormwater discharges associated with industrial activity that are authorized by this permit. Use of BMPs in lieu of numeric effluent limitations in NPDES permits is authorized under 40 CFR 122.44(k) when the Permitting Authority finds numeric effluent limitations to be infeasible to carry out the purposes of the Clean Water Act.
17. The permittee has agreed to monitor the color of the Ouachita River above and below its confluence with Coffee Creek. This monitoring will take place once per quarter. An EPA approved test method will be used and the color will be measured on the platinum-cobalt scale. The permittee shall submit the proposed monitoring locations to the Department for approval within 30 days of the effective date of the permit.

18. Monitoring Frequency Reduction

After the submittal of 12 months (minimum of 12 data points) of data, the permittee may request, in writing, Department approval of a reduction in monitoring frequency. This request shall contain an explanation as to why the reduced monitoring is appropriate. A reduction will only be allowed if effluent concentrations are below the discharge limitations and there is minimal variability in the effluent concentrations. Upon receipt of written approval by the Department, the permittee may reduce the monitoring frequency indicated below. A one time monitoring frequency reduction for Total Recoverable Copper, Total Recoverable Zinc, and Dieldrin shall not be reduced to less than once per quarter. A one time monitoring frequency reduction for pH shall not be reduced to less than three per week. The Department may revoke the approval for reduced monitoring at any time upon notification to the permittee. This condition applies only to Total Recoverable Copper, Total Recoverable Zinc, Dieldrin, and pH.

19. The permittee must receive written permission prior to the transfer of any product stewardship waters from another Georgia-Pacific LLC facility to the Crossett facility. The request must include, at a minimum, the following items: source of the wastewaters, confirmation that the wastewaters are similar to those already being treated in the system, the need for transferring the wastewater, the volume of wastewater involved, and the dates on which the transfer will occur.

The Department reserves the right to deny the request to transfer wastewaters to the Crossett facility in the event that it is determined that the exceptions to 40 CFR Part 437 listed in the preamble are not met or if any transfers cause non-compliance with the terms and conditions of

the permit. The Department also reserves the right to require additional monitoring based on the types of wastewater transferred.

20. Mercury Minimization Plan

- The permittee shall develop and implement a Mercury Minimization Program Plan no later than September 1, 2011. This plan shall be submitted to the Permits Branch of the Water Division. This program must be formatted as outlined in the following conditions. The permittee shall submit an annual report to the Permits Branch by October 31, 2012, and each subsequent year of the permit for the activities in the previous September 1 to August 31 time frame. The annual report should include a summary of potential significant sources of mercury, control measures developed and implemented, results of source reduction activities and monitoring, sampling results and any adjustments made to the program plan.
- The permittee shall develop specific plans to identify and eliminate potential significant sources of mercury in the effluent. Methods which may be used are:

a. Source Identification:

- Work with the City of Crossett to identify industrial users with a potential for contributing significant amounts of mercury to the City of Crossett's wastewater treatment lagoons. This includes reviewing EPA standards in 40 CFR Parts 405 through 471 to determine if mercury is a pollutant of concern for a particular industry.
- Conduct a review of chemicals, processes, and materials which are either stored or handled at the Georgia-Pacific facility to determine if they may contribute significant amounts of mercury.
- Estimate the amount of mercury in precipitation through use of information available from the National Atmospheric Deposition Program – Mercury Deposition Network. This information is available at <http://nadp.sws.uiuc.edu/>.

b. Mercury monitoring:

- Monitoring of the Georgia-Pacific treatment plant influent and effluent as well as the wastewater received from the City of Crossett.
- Monitoring at internal points in the Georgia-Pacific facility as required to identify any significant sources of mercury as a result of elevated influent concentrations.
- Final effluent monitoring (at Outfall 001) shall not be less than once per quarter and must use an EPA approved test method with an MQL of 0.005 µg/l or less. If mercury is non-detectable at the method MQL for a period of four consecutive quarters, then permittee may petition the Permits Branch for a suspension of the monitoring.

- Should significant potential contributors of mercury be identified in the City of Crossett sewer system based on source review, permittee should communicate appropriate sampling requirements to the City of Crossett.

c. Control Measures:

Activities selected by permittee for control measures should be based on the potential of those activities to reduce mercury loadings into the wastewater treatment system and ultimately its treated effluent.

- A control can be any measure or action that reduces the amount of mercury contributed to the system.
- Source significance should be considered. An effort to quantify or estimate load potential from each significant source should be made. This effort should assist in prioritizing sources for mercury reduction and elimination efforts.
- Assist the City of Crossett in identifying appropriate educational materials regarding the stewardship of mercury-containing items for residential users of the City of Crossett’s wastewater treatment lagoons.
- Control measures should be tracked to determine the measure of performance and goal achievement for each type of source. Tracking may indicate the need to change course as necessary for any given source.

21. Chemical Usage Restrictions

Usage of Hydrogen Peroxide and an Organic Iron Catalyst shall not exceed the usage rates set forth in the following table. The permittee must maintain records of the chemical usage and make those records available to Department personnel upon request. The records must be updated no later than the 25th day of the month following the month which the records represent.

Location	Hydrogen Peroxide (H ₂ O ₂)		Organic Iron Catalyst	
	Avg. Usage ¹	Max. Usage	Avg. Usage ¹	Max. Usage
after screening & prior to primary clarifier	10,000 lb/d @ 50% H ₂ O ₂	20,000 lb/d @ 50% H ₂ O ₂	218 lb/d AOTech CW	436 lb/d AOTech CW
P2 Sewer	14,400 lb/d @ 50% H ₂ O ₂	30,000 lb/d @ 50% H ₂ O ₂	272 lb/day AOTech CW	567 lb/d AOTech CW
Chemical Plant	667 lb/d @ 30% H ₂ O ₂	1,335 lb/d @ 30% H ₂ O ₂	132 lb/day AOTech S	264 lb/d AOTech S

1. The average usage shall be calculated as the average use per day for the calendar month.

PART III STANDARD CONDITIONS

SECTION A – GENERAL CONDITIONS

1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Water Act and the Arkansas Water and Air Pollution Control Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; and/or for denial of a permit renewal application. **Any values reported in the required Discharge Monitoring Report (DMR) which are in excess of an effluent limitation specified in Part I shall constitute evidence of violation of such effluent limitation and of this permit.**

2. Penalties for Violations of Permit Conditions

The Arkansas Water and Air Pollution Control Act provides that any person who violates any provisions of a permit issued under the Act shall be guilty of a misdemeanor and upon conviction thereof shall be subject to imprisonment for not more than one (1) year, or a fine of not more than twenty-five thousand dollars (\$25,000) or by both such fine and imprisonment for each day of such violation. Any person who violates any provision of a permit issued under the Act may also be subject to civil penalty in such amount as the court shall find appropriate, not to exceed ten thousand dollars (\$10,000) for each day of such violation. The fact that any such violation may constitute a misdemeanor shall not be a bar to the maintenance of such civil action.

3. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause including, but not limited to the following:

- a. Violation of any terms or conditions of this permit; or
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
- c. A change in any conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
- d. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.
- e. Failure of the permittee to comply with the provisions of APCEC Regulation No. 9 (Permit fees) as required by Part III.A.10. herein.

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

4. Toxic Pollutants

Notwithstanding Part III.A.3., if any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under APCEC Regulation No. 2, as amended, or Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitations on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standards or prohibition and the permittee so notified.

The permittee shall comply with effluent standards, narrative criteria, or prohibitions established under APCEC Regulation No. 2, as amended, or Section 307 (a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

5. Civil and Criminal Liability

Except as provided in permit conditions on “Bypassing” (Part III.B.4.a.), and “Upsets” (Part III.B.5.b), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Any false or materially misleading representation or concealment of information required to be reported by the provisions of this permit or applicable state and federal statutes or regulations which defeats the regulatory purposes of the permit may subject the permittee to criminal enforcement pursuant to the Arkansas Water and Air Pollution Control Act (Act 472 of 1949, as amended).

6. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under Section 311 of the Clean Water Act.

7. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Clean Water Act.

8. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

9. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provisions of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

10. Permit Fees

The permittee shall comply with all applicable permit fee requirements for wastewater discharge permits as described in APCEC Regulation No. 9 (Regulation for the Fee System for Environmental Permits). Failure to promptly remit all required fees shall be grounds for the Director to initiate action to terminate this permit under the provisions of 40 CFR Parts 122.64 and 124.5 (d), as adopted in APCEC Regulation No. 6 and the provisions of APCEC Regulation No. 8.

SECTION B – OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

- a. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
- b. The permittee shall provide an adequate operating staff which is duly qualified to carryout operation, maintenance, and testing functions required to insure compliance with the conditions of this permit.

2. Need to Halt or Reduce not a Defense

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. Upon reduction, loss, or failure of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control production or discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power for the treatment facility is reduced, is lost, or alternate power supply fails.

3. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment or the water receiving the discharge.

4. Bypass of Treatment Facilities

a. Bypass not exceeding limitation

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts II.B.4.b. and 4.c.

b. Notice

- (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
- (2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part III.D.6. (24-hour notice).

c. Prohibition of bypass

- (1) Bypass is prohibited and the Director may take enforcement action against a permittee for bypass, unless:
 - (a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal or preventive maintenance; and

- (c) The permittee submitted notices as required by Part III.B.4.b.
- (2) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in Part III.B.4.c.(1).

5. Upset Conditions

- a. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Part III.B.5.b. of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- b. Conditions necessary for demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (1) An upset occurred and that the permittee can identify the specific cause(s) of the upset;
 - (2) The permitted facility was at the time being properly operated.
 - (3) The permittee submitted notice of the upset as required by Part III.D.6.; and
 - (4) The permittee complied with any remedial measures required by Part III.B.3.
- c. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

6. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of waste waters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering the waters of the State. Written approval must be obtained from the ADEQ for land application only.

7. Power Failure

The permittee is responsible for maintaining adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failure either by means of alternate power sources, standby generators, or retention of inadequately treated effluent.

SECTION C – MONITORING AND RECORDS

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge during the entire monitoring period. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Director. Intermittent discharges shall be monitored.

2. Flow Measurement

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to insure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than +/- 10% from true discharge rates throughout the range of expected discharge volumes and shall be installed at the monitoring point of the discharge.

3. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals frequent enough to insure accuracy of measurements and shall insure that both calibration and maintenance activities will be conducted. An adequate analytical quality control program, including the analysis of sufficient standards, spikes, and duplicate samples to insure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory. At a minimum, spikes and duplicate samples are to be analyzed on 10% of the samples.

4. Penalties for Tampering

The Arkansas Water and Air Pollution Control Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under the Act shall be guilty of a misdemeanor and upon conviction thereof shall be subject to imprisonment for not more than one (1) year or a fine of not more than ten thousand dollars (\$10,000) or by both such fine and imprisonment.

5. Reporting of Monitoring Results

Monitoring results must be reported on a Discharge Monitoring Report (DMR) form (EPA No. 3320-1 or other approved Form by ADEQ). Permittees are required to use preprinted DMR forms provided by ADEQ, unless specific written authorization to use other reporting forms is obtained from ADEQ. Monitoring results obtained during the previous calendar month shall be summarized and reported on a DMR form postmarked no later than the 25th day of the month following the completed reporting period to begin on the effective date of the permit. Duplicate copies of DMR forms signed and certified as required by Part III.D.11. and all other reports required by Part III.D., shall be submitted to the Director at the following address:

Permits Enforcement Branch
Water Division
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317

If permittee uses outside laboratory facilities for sampling and/or analysis, the name and address of the contract laboratory shall be included on the DMR.

6. Additional Monitoring by the Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR. Such increased frequency shall also be indicated on the DMR.

7. Retention of Records

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Director at any time.

8. Record Contents

Records and monitoring information shall include:

- a. The date, exact place, time and methods of sampling or measurements, and preservatives used, if any;
- b. The individuals(s) who performed the sampling or measurements;

- c. The date(s) and time analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The measurements and results of such analyses.

9. Inspection and Entry

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- a. Enter upon the permittee's premises where a regulated facility or activity is located or 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 control equipment), practices, or operations regulated or required under this permit, and
- d. Sample, inspect, or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

SECTION D – REPORTING REQUIREMENTS

1. Planned Changes

The permittee shall give notice and provide plans and specification to the Director for review and approval prior to any planned physical alterations or additions to the permitted facility. Notice is required only when:

- a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR Part 122.29(b).
- b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR Part 122.42 (a)(1).

2. Anticipated Noncompliance

The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. Transfers

The permit is nontransferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Act.

4. Monitoring Reports

Monitoring results shall be reported at the intervals and in the form specified in Part III.C.5. **Discharge Monitoring Reports must be submitted even when no discharge occurs during the reporting period.**

5. Compliance Schedule

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date. Any reports of noncompliance shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

6. Twenty-four Hour Report

- a. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain the following information:
 - (1) a description of the noncompliance and its cause;
 - (2) the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
 - (3) steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
- b. The following shall be included as information which must be reported within 24 hours:
 - (1) Any unanticipated bypass which exceeds any effluent limitation in the permit;
 - (2) Any upset which exceeds any effluent limitation in the permit and
 - (3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in Part I of the permit to be reported within 24 hours to the Enforcement Section of the Water Division of the ADEQ.
- c. The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours to the Enforcement Section of the Water Division of the ADEQ.

7. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under Parts II.D.4., 5., and 6., at the time monitoring reports are submitted. The reports shall contain the information listed at Part III.D.6.

8. Changes in Discharge of Toxic Substances for Industrial Dischargers

The permittee shall notify the Director as soon as he/she knows or has reason to believe:

- a. That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the “notification levels” described in 40 CFR Part 122.42(a)(1); or
- b. That any activity has occurred or will occur which would result in any discharge on a non-routine or infrequent basis of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the “notification levels” described in 40 CFR Part 122.42(a)(2).

9. Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit. Information shall be submitted in the form, manner and time frame requested by the Director.

10. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The complete application shall be submitted at least 180 days before the expiration date of this permit. The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date. Continuation of expiring permits shall be governed by regulations promulgated in APCEC Regulation No. 6.

11. Signatory Requirements

All applications, reports, or information submitted to the Director shall be signed and certified as follows:

- a. All **permit applications** shall be signed as follows:
 - (1) For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
 - (ii) The manager of one or more manufacturing, production, or operation facilities, provided: the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - (2) For a partnership or sole proprietorship: by a general partner or proprietor, respectively; or
 - (3) For a municipality, State, Federal, or other public agency, by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
 - (i) The chief executive officer of the agency, or
 - (ii) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
- b. All **reports** required by the permit and **other information** requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - (1) The authorization is made in writing by a person described above.
 - (2) The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
 - (3) The written authorization is submitted to the Director.
- c. Certification. Any person signing a document under this section shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

12. Availability of Reports

Except for data determined to be confidential under 40 CFR Part 2 and APCEC Regulation No. 6, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department of Environmental Quality. As required by the Regulations, the name and address of any permit applicant or permittee, permit applications, permits, and effluent data shall not be considered confidential.

13. Penalties for Falsification of Reports

The Arkansas Air and Water Pollution Control Act provides that any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this permit shall be subject to civil penalties specified in Part III.A.2. and/or criminal penalties under the authority of the Arkansas Water and Air Pollution Control Act (Act 472 of 1949, as amended).

PART IV DEFINITIONS

All definitions contained in Section 502 of the Clean Water Act shall apply to this permit and are incorporated herein by reference. Additional definitions of words or phrases used in this permit are as follows:

1. **“Act”** means the Clean Water Act, Public Law 95-217 (33.U.S.C. 1251 et seq.) as amended.
2. **“Administrator”** means the Administrator of the U.S. Environmental Protection Agency.
3. **“Applicable effluent standards and limitations”** means all State and Federal effluent standards and limitations to which a discharge is subject under the Act, including, but not limited to, effluent limitations, standards of performance, toxic effluent standards and prohibitions, and pretreatment standards.
4. **“Applicable water quality standards”** means all water quality standards to which a discharge is subject under the federal Clean Water Act and which has been (a) approved or permitted to remain in effect by the Administrator following submission to the Administrator pursuant to Section 303(a) of the Act, or (b) promulgated by the Director pursuant to Section 303(b) or 303(c) of the Act, and standards promulgated under (APCEC) Regulation No. 2, as amended.
5. **“Bypass”** means the intentional diversion of waste streams from any portion of a treatment facility.
6. **“Daily Discharge”** means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling.
Mass Calculations: For pollutants with limitations expressed in terms of mass, the “daily discharge” is calculated as the total mass of pollutant discharged over the sampling day.
Concentration Calculations: For pollutants with limitations expressed in other units of measurement, determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the “daily discharge” determination of concentration shall be the arithmetic average (weighted by flow value) of all the samples collected during that sampling day by using the following formula: where C= daily concentration, F=daily flow and n=number of daily samples

$$\frac{C_1F_1 + C_2F_2 + \dots + C_nF_n}{F_1 + F_2 + \dots + F_n}$$

7. **“Monthly average”** means the highest allowable average of “daily discharges” over a calendar month, calculated as the sum of all “daily discharges” measured during a calendar month divided by the number of “daily discharges” measured during that month. For Fecal Coliform Bacteria (FCB) report the monthly average (see 30-day average below).

8. **“Daily Maximum”** discharge limitation means the highest allowable “daily discharge” during the calendar month. The daily average for Fecal Coliform Bacteria (FCB) is the geometric mean of the values of all effluent samples collected during the day in colonies per 100 ml.
9. **“Department”** means the Arkansas Department of Environmental Quality (ADEQ).
10. **“Director”** means the Administrator of the U.S. Environmental Protection Agency and/or the Director of the Arkansas Department of Environmental Quality.
11. **“Grab sample”** means an individual sample collected in less than 15 minutes in conjunction with an instantaneous flow measurement.
12. **“Industrial User”** means a nondomestic discharger, as identified in 40 CFR Part 403, introducing pollutants to a POTW.
13. **“National Pollutant Discharge Elimination System”** means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements under Sections 307, 402, 318, and 405 of the Clean Water Act.
14. **“POTW”** means a Publicly Owned Treatment Works.
15. **“Severe property damage”** means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in products.
16. **“APCEC”** means the Arkansas Pollution Control and Ecology Commission.
17. **“Sewage sludge”** means the solids, residues, and precipitate separated from or created in sewage by the unit processes at a POTW. Sewage as used in this definition means any wastes, including wastes from humans, households, commercial establishments, industries, and stormwater runoff that are discharged to or otherwise enter a POTW.
18. **“7-day average”** discharge limitation, other than for Fecal Coliform Bacteria (FCB), is the highest allowable arithmetic mean of the values for all effluent samples collected during the calendar week. The 7-day average for Fecal Coliform Bacteria (FCB) is the geometric mean of the values of all effluent samples collected during the calendar week in colonies/100 ml. The Discharge Monitoring Report should report the highest 7-day average obtained during the calendar month. For reporting purposes, the 7-day average values should be reported as occurring in the month in which the Saturday of the calendar week falls in.
19. **“30-day average”**, other than for Fecal Coliform Bacteria (FCB), is the arithmetic mean of the daily values for all effluent samples collected during a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. The 30-day average for Fecal Coliform Bacteria (FCB) is the geometric mean of the values for all effluent samples collected during a calendar month. For Fecal Coliform Bacteria (FCB), report the monthly average as a 30-day geometric mean in colonies per 100 ml.

20. **“24-hour composite sample”** consists of a minimum of 12 effluent portions collected at equal time intervals over the 24-hour period and combined proportional to flow or a sample collected at frequent intervals proportional to flow over the 24-hour period.
21. **“12-hour composite sample”** consists of 12 effluent portions, collected no closer together than one hour and composited according to flow or a sample collected at frequent intervals proportional to flow over the 12-hour period.
22. **“6-hour composite sample”** consists of six effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) and composited according to flow or a sample collected at frequent intervals proportional to flow over the 6-hour period.
23. **“3-hour composite sample”** consists of three effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) and composited according to flow or a sample collected at frequent intervals proportional to flow over the 3-hour period.
24. **“Treatment works”** means any devices and systems used in storage, treatment, recycling, and reclamation of municipal sewage and industrial wastes, of a liquid nature to implement section 201 of the Act, or necessary to recycle reuse water at the most economic cost over the estimated life of the works, including intercepting sewers, sewage collection systems, pumping, power and other equipment, and alterations thereof; elements essential to provide a reliable recycled supply such as standby treatment units and clear well facilities, and any works, including site acquisition of the land that will be an integral part of the treatment process or is used for ultimate disposal of residues resulting from such treatment.
25. **“Upset”** means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. Any upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventive maintenance, or careless of improper operations.
26. **“For Fecal Coliform Bacteria (FCB)”**, a sample consists of one effluent grab portion collected during a 24-hour period at peak loads. For Fecal Coliform Bacteria (FCB) report the monthly average as a 30-day geometric mean in colonies per 100 ml.
27. **“Dissolved oxygen limit”**, shall be defined as follows:
 - a. When limited in the permit as a monthly average minimum, shall mean the lowest acceptable monthly average value, determined by averaging all samples taken during the calendar month;
 - b. When limited in the permit as an instantaneous minimum value, shall mean that no value measured during the reporting period may fall below the stated value.
28. **The term “MGD”** shall mean million gallons per day.
29. **The term “mg/l”** shall mean milligrams per liter or parts per million (ppm).
30. **The term “µg/l”** shall mean micrograms per liter or parts per billion (ppb).
31. **The term “cfs”** shall mean cubic feet per second.
32. **The term “ppm”** shall mean parts per million.
33. **The term “s.u.”** shall mean standard units.

34. **The term “Instantaneous Maximum”** when limited in the permit as an instantaneous maximum value, shall mean that no value measured during the reporting period may fall above the stated value.

35. **Monitoring and Reporting:**

When a permit becomes effective, monitoring requirements are of the immediate period of the permit effective date. Where the monitoring requirement for an effluent characteristic is monthly or more frequently, the Discharge Monitoring Report (DMR) shall be submitted by the 25th of the month following the sampling. Where the monitoring requirement for an effluent characteristic is Quarterly, Semi-Annual, Annual, or Yearly, the DMR shall be submitted by the 25th of the month following the monitoring period end date.

MONTHLY:

is defined as a calendar month or any portion of a calendar month for monitoring requirement frequency of once/month or more frequently.

QUARTERLY:

(1) is defined as a fixed calendar quarter or any part of the fixed calendar quarter for a non-seasonal effluent characteristic with a measurement frequency of once/quarter. Fixed calendar quarters are: January through March, April through June, July through September, and October through December; or

(2) is defined as a fixed three month period (or any part of the fixed three month period) of or dependent upon the seasons specified in the permit for a seasonal effluent characteristic with a monitoring requirement frequency of once/quarter that does not coincide with the fixed calendar quarter. Seasonal calendar quarters are: May through July, August through October, November through January, and February through April.

SEMI-ANNUAL:

is defined as the fixed time periods January through June, and July through December (or any portion thereof) for an effluent characteristic with a measurement frequency of once/6 months or twice/year.

ANNUAL or YEARLY:

is defined as a fixed calendar year or any portion of the fixed calendar year for an effluent characteristic or parameter with a measurement frequency of once/year. A calendar year is January through December, or any portion thereof.

36. **The term “Weekday”** means Monday – Friday.

Final Fact Sheet

All changes to the Statement of Basis based upon the permit application are italicized.

This is a modified permit and only the modified portion of the permit are open for comment. This Fact Sheet is for information and justification of the permit limits only. Please note that it is not enforceable. This permitting decision is for modification of the discharge Permit Number AR0001210 with Arkansas Department of Environmental Quality (ADEQ) Facility Identification Number (AFIN) 02-00013 to discharge to Waters of the State.

1. PERMITTING AUTHORITY.

The issuing office is:

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

2. APPLICANT.

The applicant's facility and mailing address is:

Georgia-Pacific LLC
Crossett Paper Operations
100 Mill Supply Road
Crossett, AR 71635

3. PREPARED BY.

The permit was prepared by:

Loretta Reiber, P.E.
Staff Engineer
Permits Branch, Water Division
(501) 682-0612
E-Mail: reiber@adeq.state.ar.us

*John Bailey, P.E.
Branch Manager
Permits Branch, Water Division
(501) 682-0629
E-mail: bailey@adeq.state.ar.us*

4. PERMIT ACTIVITY.

Permit Effective Date: November 1, 2010
1st Major Modification Effective Date: *July 1, 2011*
Permit Expiration Date: October 31, 2015

THIS IS A MODIFIED PERMIT. IN ACCORDANCE WITH 40 CFR 122.62, ONLY THE CONDITIONS WHICH WERE THE SUBJECT OF THE MODIFICATION WERE OPEN FOR COMMENT AT THIS TIME.

1ST Major Modification

Note: The changes made in the first major modification are not open for comment at this time.

ADEQ issued a renewal permit to Georgia-Pacific LLC on September 30, 2010. Georgia-Pacific LLC filed a timely appeal of the renewal permit. A Permit Appeal Resolution (PAR) between the permittee and the Department was reached. The permittee signed the PAR on March 7, 2011, while the Department signed it on March 15, 2011. The issues contained in the appeal and the resolutions outlined in the PAR are as follows:

- The permittee appealed the pH monitoring frequency of once per day in the permit which was issued on September 30, 2010. The pH monitoring frequencies in the final permit were different from what was contained in the draft permit based upon a comment from the Louisiana Department of Environmental Quality which noted that the frequencies in the permit did not match the frequencies listed in the Fact Sheet.

The pH monitoring frequencies at Outfall 001 and SMS 002 have been changed to three times per week. These are the frequencies which were contained in the previously issued NPDES permit.

- The permittee appealed the terms of Conditions No. 16 and No. 17 of the final permit. They stated that these conditions were not necessary for the protection of human health or the environment since they specified which portion of the Georgia-Pacific LLC compound in Crossett held the permit and steps to be taken in regards to the wastewater treatment system if one of the other facilities were to be sold to a different company.

Conditions No. 16 and No. 17 have been deleted. The Department is in agreement that the conditions are not necessary for protection of human health or the environment. It is the responsibility of any buyer of an industrial site to arrange for proper treatment of its wastewater. Part III, Section D, Condition No. 1 of the permit requires facilities to notify the Department of any changes which could significantly change the nature of pollutants discharged.

- The permittee appealed some of the specific terms of the Mercury Minimization Plan. They stated that they could not be responsible for actions required to be taken by the City of Crossett.

The Mercury Minimization Plan has been modified to identify what the permittee must require of the City of Crossett in regards to the plan. The Department is in agreement that the permittee cannot be held responsible for making sure that the City of Crossett carries out the specific terms of Georgia-Pacific LLC's NPDES permit. However, the permittee can require the City of Crossett to implement procedures for identification of sources of mercury and sampling requirements through the agreement required by Condition No. 10 of Part II of the permit. That is, the permittee can hold the City of Crossett responsible for the quality of the wastewater which enters Georgia-Pacific LLC's wastewater treatment system, including any mercury which may be present.

It is important to note that the requirement for the permittee to develop and implement a Mercury Minimization Plan by September 1, 2011, is remaining in the permit. The Mercury Minimization Plan is required to be submitted to the Department. The permittee is required to submit an annual report to the Department which should include a summary of potential sources of mercury, control measures developed and implemented, results of source reduction activities and monitoring, sampling results, and any adjustments made to the program plan.

2nd Major Modification

In a letter dated June 20, 2014, the permittee requested permission to conduct a pilot study to investigate the use of Hydrogen Peroxide with an Organic Iron Catalyst to reduce the emissions of Hydrogen Sulfide. Permission to conduct the study was granted by the Department in a letter dated July 31, 2014. On February 12, 2015, and February 26, 2015, the permittee requested an extension to the time frame allowed for the pilot study since it was thus far considered to be successful. In a letter from the Department to the permittee dated March 24, 2015, the Department granted a 6 month extension to the pilot study and stated that a permit modification would have to be obtained if the facility wanted to continue the use of the chemicals after the extension is over.

The permittee submitted an application to modify their existing NPDES discharge permit which was received on May 27, 2015, with all additional information received by June 30, 2015, as well as an e-mail received August 7, 2015. The facility is requesting that the permit be modified to allow for the use of chemical treatment (Hydrogen Peroxide and organic Iron catalyst) in the primary clarifier, the P2 sewer, and at the chemical plant to reduce sulfide emissions which will result in reduction of odors.

Based on the application and the August 7th e-mail, it is the Department's understanding that Georgia-Pacific LLC (GP) is requesting permission to add Hydrogen Peroxide and an Iron Catalyst at three points in the upper areas of the wastewater collection and treatment system. This will require installation of pumps and tanks at each of the points (P2 Sewer at the manufacturing site, just upstream of the Clarifier, and at the Chemical Plant). The purpose of these additions is to control odor, not to provide treatment of the wastewater.

As allowed in Reg. 6.202(C), the Department has determined that the proposed modifications could be “minor revisions” to the treatment system and therefore not require a State Construction Permit. The Department has reviewed the application to modify the NPDES permit and is satisfied that the addition of the tanks and pumps needed to add the Hydrogen Peroxide and Iron Catalyst for odor control are minor revisions to the treatment system and will not require GP to obtain a State Construction Permit for this activity.

The discharge permit is modified for the remainder of the 5-year term in accordance with the regulations promulgated at 40 CFR 122.46(a) to allow for the use of Hydrogen Peroxide and Organic Iron Catalyst to reduce Hydrogen Sulfide emissions.

Compliance and Enforcement History:

Compliance and Enforcement History for this facility can be reviewed by using the following web link:

http://www.adeg.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0001210_Final%20Compliance%20Memo_20150706.txt

5. FINANCIAL ASSURANCE

The permittee is not required to obtain financial assurance because the City of Crossett, which discharges to Georgia-Pacific upstream of the aeration basin and downstream of all other treatment units, already owns and operates its own wastewater treatment plant.

6. SIGNIFICANT CHANGES FROM THE PREVIOUSLY ISSUED PERMIT.

THIS IS A MODIFIED PERMIT. IN ACCORDANCE WITH 40 CFR 122.62, ONLY THE CONDITIONS WHICH WERE THE SUBJECT OF THE MODIFICATION WERE OPEN FOR COMMENT AT THIS TIME.

The permittee is responsible for carefully reading the permit in detail and becoming familiar with all of the changes therein:

- 1. Condition No. 21 has been added to the permit to restrict the amounts of Hydrogen Peroxide and Iron Catalyst that may be added to the treatment plant at specified locations. This condition is necessary to prevent more chemicals being used than has been reviewed by the Department.*
- 2. The interim limits for Dieldrin, Copper, and Zinc have been removed from the permit since the date for compliance with the final permit limits has passed. As a result, the interim limits pages for Outfall 001 and SMS002 have been removed. The Permit*

Compliance Section (Part IB) of the permit has been modified. The permittee is in compliance with the final permit limits for all three parameters.

3. *The requirement to conduct a fish tissue study during the third year of the term of the permit has been removed from Part IB of the permit since the permittee conducted the testing as required. This does not preclude the Department from including fish tissues study requirements in future renewal permits.*

7. RECEIVING STREAM SEGMENT AND DISCHARGE LOCATION.

The outfall is located at the following coordinates based on the May 26, 2009, site visit, Google Earth, and the permit application using NAD83:

Outfall 001:	Latitude : 33E 06' 22.5"; Longitude: 92E 02' 17.2"
SMS 002:	Latitude : 33E 01' 58"; Longitude: 92E 04' 25"
Internal Outfall 101:	Latitude : 33E 08' 29.5"; Longitude: 91E 58' 25.8"
Internal Outfall 102:	Latitude : 33E 08' 29.5"; Longitude: 91E 58' 25.8"
Internal Outfall 103:	Latitude : 33E 08' 29.5"; Longitude: 91E 58' 25.8"

The receiving waters named:

Outfall 001 : the upper reaches of Mossy Lake, then to Coffee Creek, then to the Ouachita River in Segment 2D of the Ouachita River Basin.

SMS 002: At the transition from Mossy Lake to Coffee Creek then into Ouachita River in Segment 2D of the Ouachita River Basin.

The Ouachita River in USGS Hydrologic Unit Code (H.U.C) of 8040202 is a Water of the State classified for primary and secondary contact recreation, raw water source for domestic (public and private), industrial, and agricultural water supplies, propagation of desirable species of fish and other aquatic life, and other compatible uses.

8. 303(d) LIST AND ENDANGERED SPECIES CONSIDERATIONS.

a. 303(d) List:

Coffee Creek below Mossy Lake is not listed on the 303(d) list. However, Reach #002 of the Ouachita River in HUC 08040202 is on the 303(d) list for Mercury in Category 4a. A Mercury Minimization Plan has been included in Part II of the permit.

Coffee Creek enters the Ouachita River in Reach #002, HUC 08040202 of Segment 2D in the Ouachita River Basin. The Ouachita River is on the State's currently approved 303(d) list in Category 5d as impaired due to Total Recoverable Copper and Total Recoverable Zinc. The sources of such pollutants are unknown. In accordance with the

requirements of 40 CFR Part 122.4(i) (prohibitions on issuance of a discharge permit for a discharge to impaired waters), information and data provided in the application, or additional information supplied by the applicant indicates that pollutants of concern are present in the effluent at concentrations which are above detection levels. Detection levels, where applicable, are consistent with EPA-defined minimum quantification levels (MQLs). Therefore, the permit establishes end-of pipe (point-of-discharge) limits, based on the most stringent applicable water quality criteria established for the receiving water, to ensure that the discharge will not contribute Total Recoverable Copper or Total Recoverable Zinc to the receiving water at levels which may exacerbate the impairment of the receiving water's designated uses. However, the stream segments listed in Category 5d are those in need of additional data to verify the accuracy of the assessment. The Department therefore reserves the right to remove these requirements at the time of the next permit renewal if the data collected demonstrates that there is not reasonable potential for water quality violations due to the levels of these parameters in the effluent and/or the reach and HUC of the Ouachita River is no longer on the 303(d) list for these parameters.

b. Endangered Species:

No comments on the application were received from the U.S. Fish and Wildlife Service (USF&WS). The draft permit and Fact Sheet were sent to the USF&WS for their review.

9. OUTFALL AND TREATMENT PROCESS DESCRIPTION.

The following is a description of the facility described in the application:

Average Design Flow: 45 MGD.

Type of Treatment: screening followed by primary clarifier, settling for ash removal, equalization, aerated lagoon with solids settling, and sludge dewatering.

With this permit modification, the permittee will be allowed to add Hydrogen Peroxide and an Organic Iron Catalyst to the wastewater for odor control. See Item No. 4, 2nd Major Modification in this Fact Sheet for additional information. Part II of the permit contains limits on the amount of Hydrogen Peroxide and the Organic Iron Catalyst.

Discharge Description: process wastewater (Paper Mill, Plywood Plant, and Studmill operations), sanitary wastewater, landfill leachate, site stormwater, chemical plant, building products, treated effluent from the City of Crossett, truck wash, backwash wastewater, and product stewardship waters.

The City of Crossett treats sanitary wastewater and some industrial wastewater in a two cell lagoon. This wastewater enters the Georgia-Pacific treatment system upstream of the aerated lagoon and downstream of any other treatment unit located at this facility.

Facility Status: This facility was evaluated using the NPDES Permit Rating Worksheet (MRAT) to determine the correct permitting status. Since the facility's MRAT score of 130 is greater than 80, this facility is classified as a Major industrial.

10. APPLICANT ACTIVITY.

Under the Standard Industrial Classification (SIC) code of 2621 or the North American Industry Classification System (NAICS) code of 322121, the applicant's activities are the operation of a paper mill.

11. SLUDGE PRACTICES.

No changes to the sludge practices are occurring with this permit modification.

12. PERMIT CONDITIONS.

The Arkansas Department of Environmental Quality has made a determination to issue a permit for the discharge described in the application. Permit requirements are based on federal regulations (40 CFR Parts 122, 124, and Subchapter N) and regulations promulgated pursuant to the Arkansas Water and Air Pollution Control Act (Act 472 of 1949, as amended, Ark. Code Ann. 8-4-101 et. seq.).

THIS IS A MODIFIED PERMIT. IN ACCORDANCE WITH 40 CFR 122.62, ONLY THE CONDITIONS WHICH WERE THE SUBJECT OF THE MODIFICATION WERE OPEN FOR COMMENT AT THIS TIME.

a. Final Effluent Limitations

Outfall 001 - process wastewater (Paper Mill, Plywood Plant, and Studmill operations), sanitary wastewater, landfill leachate, site stormwater, chemical plant, building products, treated effluent from the City of Crossett, truck wash, backwash wastewater, and product stewardship waters. (Note: Outfall 001 is located immediately downstream of the permittee's aerated lagoon.)

1. Conventional and/or Toxic Pollutants

<u>Effluent Characteristics</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	Mass (lbs/day, unless otherwise specified)		Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Avg.	Daily Max	Monthly Avg.	Daily Max		
Flow (MGD)	N/A	N/A	Report	Report	daily	totalizing meter
Biochemical Oxygen Demand (BOD5)	24155.4	46453.0	64.4	123.8	three/week	24-hr composite
Total Suspended Solids (TSS)	37720	70188	119.6	222.4	three/week	24-hr composite
2,3,7,8-TCDD	Report	Report	Report pg/l	Report pg/l	once/quarter	24-hr composite
Adsorbable Organic Halogens (AOX)	2146	3276	N/A	N/A	three/week	24-hr composite
Dieldrin	0.00034	0.0011	0.00091 µg/l	0.00284 µg/l	once/month	24-hr composite*
Total Recoverable Copper	7.04	14.12	18.75 µg/l	37.62 µg/l	once/month	24-hr composite*
Total Recoverable Zinc	73.02	146.52	194.58 µg/l	390.41 µg/l	once/month	24-hr composite*
Total Phosphorous	Report	Report	Report	Report	once/month	24-hr composite
Nitrates as Nitrogen	Report	Report	Report	Report	once/month	24-hr composite
pH	N/A	N/A	<u>Minimum</u> 6.0 s.u.	<u>Maximum</u> 9.0 s.u.	three/week	grab
Chronic WET Testing	N/A	N/A	Report, See Item #14 of this Fact Sheet.		once/2 months	24-hr composite

*Sample may consist of four grab samples taken over a 24 hour period and flow weighted.

2. **Solids, Foam, and Free Oil:** There shall be no discharge of distinctly visible solids, scum, or foam of a persistent nature, nor shall there be any formation of slime, bottom deposits, or sludge banks. There shall be no visible sheen due to the presence of oil (Sheen means an iridescent appearance on the surface of the water).

b. **Final Effluent Limitations**

Stream Monitoring Station (SMS) 002 – At the Transition from Mossy Lake to Coffee Creek

1. **Conventional and/or Toxic Pollutants**

<u>Effluent Characteristics</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements*</u>	
	Mass (lbs/day, unless otherwise specified)		Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Avg.	Daily Max	Monthly Avg.	Daily Max		
Flow (MGD)	N/A	N/A	Report	Report	daily	totalizing meter
Biochemical Oxygen Demand (BOD5)						
(October – July)	8000	12000	Report	Report	three/week	24-hr composite
(August)	7262	10893	Report	Report	three/week	24-hr composite
(September)	5911	8867	Report	Report	three/week	24-hr composite
Total Suspended Solids (TSS)	18000	30000	Report	Report	three/week	24-hr composite
Dieldrin	0.00034	0.0011	0.00091 µg/l	0.00284 µg/l	once/month	grab
Total Recoverable Copper	7.04	14.12	18.75 µg/l	37.62 µg/l	once/month	grab
Total Recoverable Zinc	73.02	146.52	194.58 µg/l	390.41 µg/l	once/month	grab
Total Phosphorous	Report	Report	Report	Report	once/month	24-hr composite
Nitrates as Nitrogen	Report	Report	Report	Report	once/month	24-hr composite
Change in Receiving Stream Color**	N/A	N/A	N/A	Report**	once/quarter	grab
pH	N/A	N/A	<u>Minimum</u> 6.0 s.u.	<u>Maximum</u> 9.0 s.u.	three/week	grab

* **When Mossy Lake is not flooded.** A flooded state is defined as the period when the gauge at the Felsenthal Lock and Dam exceeds 62 feet and also for the two weeks following the recession of flood waters below 62 feet.

**See Condition No. 17 of Part II of the permit.

2. **Solids, Foam, and Free Oil:** There shall be no discharge of distinctly visible solids, scum, or foam of a persistent nature, nor shall there be any formation of slime, bottom deposits, or sludge banks. There shall be no visible sheen due to the presence of oil (Sheen means an iridescent appearance on the surface of the water).

c. **Effluent Limitations**

Internal Outfall 101 – Line 1A of Hardwood Effluent

1. **Conventional and/or Toxic Pollutants**

<u>Effluent Characteristics</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	Mass (lbs/day, unless otherwise specified)		Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Avg.	Daily Max	Monthly Avg.	Daily Max		
Flow (MGD)	N/A	N/A	Report	Report	Daily	Instantaneous
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	N/A	N/A	N/A	< 10 pg/l	Once/quarter	24-hr composite
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	N/A	N/A	N/A	31.9 pg/l	Once/quarter	24-hr composite
Trichlorosyringol	N/A	N/A	N/A	< 2.5 µg/l	Once/quarter	24-hr composite
3,4,5-Trichlorocatechol	N/A	N/A	N/A	< 5.0 µg/l	Once/quarter	24-hr composite
3,4,6-Trichlorocatechol	N/A	N/A	N/A	< 5.0 µg/l	Once/quarter	24-hr composite
3,4,5-Trichloroguaiacol	N/A	N/A	N/A	< 2.5 µg/l	Once/quarter	24-hr composite
3,4,6-Trichloroguaiacol	N/A	N/A	N/A	< 2.5 µg/l	Once/quarter	24-hr composite
4,5,6-Trichloroguaiacol	N/A	N/A	N/A	< 2.5 µg/l	Once/quarter	24-hr composite
2,4,5-Trichlorophenol	N/A	N/A	N/A	< 2.5 µg/l	Once/quarter	24-hr composite
2,4,6-Trichlorophenol	N/A	N/A	N/A	< 2.5 µg/l	Once/quarter	24-hr composite
Tetrachlorocatechol	N/A	N/A	N/A	< 5.0 µg/l	Once/quarter	24-hr composite
Tetrachloroguaiacol	N/A	N/A	N/A	< 5.0 µg/l	Once/quarter	24-hr composite
2,3,4,6-Tetrachlorophenol	N/A	N/A	N/A	< 2.5 µg/l	Once/quarter	24-hr composite
Pentachlorophenol	N/A	N/A	N/A	<5.0 µg/l	Once/quarter	24-hr composite
Chloroform	4.78	7.99	Report	Report	Once/2 months	24-hr composite

d. **Effluent Limitations**

Internal Outfall 102 – Line 1B of Hardwood Effluent

1. **Conventional and/or Toxic Pollutants**

<u>Effluent Characteristics</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	Mass (lbs/day, unless otherwise specified)		Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Avg.	Daily Max	Monthly Avg.	Daily Max		
Flow (MGD)	N/A	N/A	Report	Report	Daily	Instantaneous

<u>Effluent Characteristics</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	Mass (lbs/day, unless otherwise specified)		Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Avg.	Daily Max	Monthly Avg.	Daily Max		
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	N/A	N/A	N/A	< 10 pg/l	Once/quarter	24-hr composite
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	N/A	N/A	N/A	31.9 pg/l	Once/quarter	24-hr composite
Trichlorosyringol	N/A	N/A	N/A	< 2.5 µg/l	Once/quarter	24-hr composite
3,4,5-Trichlorocatechol	N/A	N/A	N/A	< 5.0 µg/l	Once/quarter	24-hr composite
3,4,6-Trichlorocatechol	N/A	N/A	N/A	< 5.0 µg/l	Once/quarter	24-hr composite
3,4,5-Trichloroguaiacol	N/A	N/A	N/A	< 2.5 µg/l	Once/quarter	24-hr composite
3,4,6-Trichloroguaiacol	N/A	N/A	N/A	< 2.5 µg/l	Once/quarter	24-hr composite
4,5,6-Trichloroguaiacol	N/A	N/A	N/A	< 2.5 µg/l	Once/quarter	24-hr composite
2,4,5-Trichlorophenol	N/A	N/A	N/A	< 2.5 µg/l	Once/quarter	24-hr composite
2,4,6-Trichlorophenol	N/A	N/A	N/A	< 2.5 µg/l	Once/quarter	24-hr composite
Tetrachlorocatechol	N/A	N/A	N/A	< 5.0 µg/l	Once/quarter	24-hr composite
Tetrachloroguaiacol	N/A	N/A	N/A	< 5.0 µg/l	Once/quarter	24-hr composite
2,3,4,6-Tetrachlorophenol	N/A	N/A	N/A	< 2.5 µg/l	Once/quarter	24-hr composite
Pentachlorophenol	N/A	N/A	N/A	< 5.0 µg/l	Once/quarter	24-hr composite
Chloroform	4.78	7.99	Report	Report	Once/2 months	24-hr composite

e. Effluent Limitations

Internal Outfall 103 – Line 2 of Softwood Effluent

1. Conventional and/or Toxic Pollutants

<u>Effluent Characteristics</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	Mass (lbs/day, unless otherwise specified)		Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Avg.	Daily Max	Monthly Avg.	Daily Max		
Flow (MGD)	N/A	N/A	Report	Report	Daily	Instantaneous
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	N/A	N/A	N/A	< 10 pg/l	Once/quarter	24-hr composite
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	N/A	N/A	N/A	31.9 pg/l	Once/quarter	24-hr composite
Trichlorosyringol	N/A	N/A	N/A	< 2.5 µg/l	Once/quarter	24-hr composite
3,4,5-Trichlorocatechol	N/A	N/A	N/A	< 5.0 µg/l	Once/quarter	24-hr composite
3,4,6-Trichlorocatechol	N/A	N/A	N/A	< 5.0 µg/l	Once/quarter	24-hr composite
3,4,5-Trichloroguaiacol	N/A	N/A	N/A	< 2.5 µg/l	Once/quarter	24-hr composite

<u>Effluent Characteristics</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	Mass (lbs/day, unless otherwise specified)		Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Avg.	Daily Max	Monthly Avg.	Daily Max		
3,4,6-Trichloroguaiacol	N/A	N/A	N/A	< 2.5 µg/l	Once/quarter	24-hr composite
4,5,6-Trichloroguaiacol	N/A	N/A	N/A	< 2.5 µg/l	Once/quarter	24-hr composite
2,4,5-Trichlorophenol	N/A	N/A	N/A	< 2.5 µg/l	Once/quarter	24-hr composite
2,4,6-Trichlorophenol	N/A	N/A	N/A	< 2.5 µg/l	Once/quarter	24-hr composite
Tetrachlorocatechol	N/A	N/A	N/A	< 5.0 µg/l	Once/quarter	24-hr composite
Tetrachloroguaiacol	N/A	N/A	N/A	< 5.0 µg/l	Once/quarter	24-hr composite
2,3,4,6-Tetrachlorophenol	N/A	N/A	N/A	< 2.5 µg/l	Once/quarter	24-hr composite
Pentachlorophenol	N/A	N/A	N/A	<5.0 µg/l	Once/quarter	24-hr composite
Chloroform	4.81	8.04	Report	Report	Once/2 months	24-hr composite

13. BASIS FOR PERMIT CONDITIONS.

The following is an explanation of the derivation of the conditions of the permit and the reasons for them or, in the case of notices of intent to deny or terminate, reasons suggesting the decisions as required under 40 CFR Part 124.7 (48 FR 1413, April 1, 1983).

Technology-Based versus Water Quality-Based Effluent Limitations and Conditions

Limits for Total Iron have not been included in the permit. Based on the pilot study data submitted to the Department, the effluent does not demonstrate reasonable potential to exceed the Gold Book Criteria for this parameter.

$$IWC = [(C_e * Q_e) + (C_b * Q_b)] / (Q_e + Q_b)$$

Where

IWC = In-stream Waste Concentration

C_e = Effluent Concentration = 1.86 mg/l (Geo. mean of Aug. 13, 2014 – Feb. 10, 2015)

Q_e = 45 MGD = 69.525 cfs

C_b = background concentration = 0.642 mg/l (Geo. mean of 2014 & 2015 at OUA0008B)

*Q_b = background flow, 7Q10 * 0.25 = 1200 cfs * 0.25 = 300 cfs*

*IWC = [(1.86 * 69.525) + (0.642 * 300)] / (69.525 + 300) = 0.87 mg/l < 1 mg/l (Gold Book Standard), therefore no reasonable potential.*

A. **Anti-backsliding**

The permit is consistent with the requirements to meet Anti-backsliding provisions of the Clean Water Act (CWA), Section 402(o) [40 CFR 122.44(l)]. The final effluent limitations for reissuance permits must be as stringent as those in the previous permit, unless the less stringent limitations can be justified using exceptions listed in 40 CFR 122.44 (l)(2)(i).

The permit maintains the limits contained in the previous permit.

B. **Limits Calculations**

The limits calculations are not changing with this permit modification.

C. **Stormwater Runoff**

No changes to the management of stormwater at this facility are occurring with this permit modification.

D. **208 Plan (Water Quality Management Plan)**

No revisions to the 208 Plan are being proposed under this permit modification.

E. **Toxics Pollutants**

No changes which would affect the concentration of toxic pollutants in the effluent are occurring with this permit modification.

14. **WHOLE EFFLUENT TOXICITY.**

No changes to the WET testing requirements are occurring with this permit modification.

15. **SAMPLE TYPE AND FREQUENCY.**

Only the sample type and sampling frequency for pH at Outfall 001 and SMS 002 have been included in the table below. No changes were made to the required pH sample type. The monitoring frequency has changed from once per day to three times per week to match the Permit Appeal Resolution. The Department agreed to make the change in the permit appeal resolution because the permittee previously sampled pH three times per week and did not have any excursions outside of the permitted pH range during the term of the current permit. See Item #4 of this Fact Sheet for additional information.

Parameter	Previous Permit		Final Permit	
	Frequency of Sample	Sample Type	Frequency of Sample	Sample Type
pH	One/day	Grab	Three/week	Grab

16. PERMIT COMPLIANCE.

The report required by Condition No. 9 of Part II of this permit shall be submitted no later than May 31 of each year.

17. MONITORING AND REPORTING.

The applicant is at all times required to monitor the discharge on a regular basis; and report the results monthly. The monitoring results will be available to the public.

18. SOURCES.

The following sources were used to draft the permit:

- a. *Permit application received May 27, 2015, with all additional information received by June 30, 2015.*
- b. 40 CFR 122.62.
- c. NPDES Permit File AR0001210.

20. POINT OF CONTACT.

For additional information, contact:

Loretta Reiber, P.E.
Permits Branch, Water Division
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317
Telephone: (501) 682-0612

