

Permit Number: AR0001210
AFIN: 02-00013

**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 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"

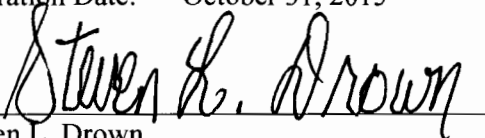
Discharge shall be in accordance with effluent limitations, monitoring requirements, and other conditions set forth in this permit.

The response to comments is attached.

Issue Date: September 30, 2010

Effective Date: November 1, 2010

Expiration Date: October 31, 2015



Steven L. Drown

Chief, Water Division

Arkansas Department of Environmental Quality

**PART I
 PERMIT REQUIREMENTS**

SECTION A. INTERIM 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 and lasting three years, 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	Report	Report	Report µg/l	Report µg/l	Once/month	24-hr composite ⁶
Total Recoverable Copper ⁵	Report	Report	Report µg/l	Report µg/l	Once/month	24-hr composite ⁶
Total Recoverable Zinc ⁵	Report	Report	Report µg/l	Report 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.	Once/day	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
			Report %		once/2 months	24-hr composite

1 See Condition Nos. 9 and 18 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 : 33° 06' 22.5"; Longitude: 92° 02' 17.2" before discharge to Mossy Lake.

**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 three years from the effective date 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.	Once/day	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			7-Day Average 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			7-Day Average 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 18 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 : 33° 06' 22.5"; Longitude: 92° 02' 17.2" before discharge to Mossy Lake.

**PART I
 PERMIT REQUIREMENTS**

SECTION A. INTERIM 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 and lasting three years, 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	Report	Report	Report µg/l	Report µg/l	Once/month	Grab
Total Recoverable Copper ²	Report	Report	Report µg/l	Report µg/l	Once/month	Grab
Total Recoverable Zinc ²	Report	Report	Report µg/l	Report 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.	Once/day	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. 19 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 : 33° 01' 58"; Longitude: 92° 04' 25".

**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 three years from the effective date 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 (BOD ₅)						
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.	Once/day	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. 19 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 : 33° 01' 58"; Longitude: 92° 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 : 33° 08' 29.5"; Longitude: 91° 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 : 33° 08' 29.5"; Longitude: 91° 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 : 33° 08' 29.5"; Longitude: 91° 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 with the exceptions listed below in Item #3.

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.
2. The permittee must conduct the fish tissue analysis required by Condition No. 11 of Part II of the permit during the third year of the permit cycle. The results must be submitted within 30 days of the completion of the sampling and analyses.
3. The permittee shall submit progress reports addressing the progress towards attaining the final effluent limits for Total Recoverable Copper, Total Recoverable Zinc, and Dieldrin according to the following schedule:

<u>ACTIVITY</u>	<u>DUE DATE</u>
Progress Report	One (1) year from effective date
Progress Report	Two (2) years from effective date
Achieve Final Limits	Three (3) years from effective date

Compliance with final limits for Total Recoverable Copper, Total Recoverable Zinc, and Dieldrin is required three (3) years from the effective date of the permit.

The permittee has the option to undertake any study deemed necessary to meet the final limitations during the interim period. Any additional treatment must be approved and construction approval granted prior to final installation.

If Dieldrin is not detected at SMS 002 during interim period of this permit, the final Dieldrin limits will be removed from the permit through a modification. The permittee must request the removal at least 6 months prior to the effective date of the final limits.

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 ($\mu\text{g/l}$)
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. The NPDES permit is issued to the Consumer Products and Paper (CP&P) mill. Should company divestitures split the CP&P mill from the Building Products (BP) facilities in the complex (Chemical plant, Stud mill and Plywood plant) then the NPDES permit will remain with the CP&P mill. The CP&P mill will be responsible for treating the wastewaters generated by the Plywood Plant, Stud Mill, and/or the Chemical Plant in the event the CP&P is split from one or more of the other facilities in the complex. This responsibility will be required until other arrangements for the wastewater have been made and this permit has been modified.
17. The Agreement with the BP facilities will stipulate that monitoring records will be maintained for a minimum of three years to ascertain compliance with the Agreement.
18. 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.
19. 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.
20. 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.

21. 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.

22. 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 beginning one year after submittal and approval of the program. The annual report should include a summary of all 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.
- The permittee shall develop specific plans to identify and eliminate potential sources of mercury in the effluent. Methods which may be used are:

Data Gathering:

- Gathering data from industrial users of the City of Crossett's wastewater treatment lagoons.
 - This includes reviewing EPA standards in 40 CFR Parts 405 – 471 to determine if mercury is a pollutant of concern for a particular industry.
- Education for residential users of the City of Crossett's wastewater treatment lagoons.
- Review of all chemicals, processes, and materials which are either stored or handled at this facility to determine if there is the potential for them to contain 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/>. Steps should then be taken to reduce inflow and infiltration into the collection system.
- Review collection system practices.

Mercury monitoring at various points within the facility/treatment system:

- Monitoring of the treatment plant influent as well as the wastewater received from the City of Crossett.
 - Monitoring throughout the treatment system as a result of elevated influent concentrations should be conducted backwards from the point at which it was measured.
 - Direct monitoring of industrial users of the City of Crossett's wastewater treatment lagoons.
- Effluent monitoring 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. Sampling of the treatment system influent and throughout the treatment system should be performed to establish baselines and goals for reduction.

Control Measures

- Activities selected by the treatment system for control measures should be based on the potential of those activities to reduce mercury loadings into the system and ultimately its effluent.
 - A control can be anything that reduces the amount of mercury contributed to the system.
 - Source significance should be considered. An effort to quantify load potential from each identified source should be made. This quantification should assist in prioritizing sources for mercury reduction and elimination efforts.
 - Economic considerations should be given regarding the reduction of mercury from an identified source.
 - Treatability considerations may apply to specific sources.
 - 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.

Resources and Staffing

- The permittee must indicate the following regarding resources and staffing:
 - Indicate the source and amount of funding that will be available to carry out the plan.
 - Indicate the number and position of employees that will devote time to planning and implementation.
 - Indicate if other entities will devote time and funding to planning or implementation.

Public Outreach

- To be effective, a mercury minimization plan should include partnerships with the public.
 - Collection programs from community residents.
 - Identification of mercury recycling vendors that otherwise would not be known to the public.

- Build community support through educational opportunities and community environmental activities.
- Issue news releases to let the public know about the program.
- Speak to local service groups and community clubs.
- Place information on utility bills.
- Development of fact sheets for distribution where mercury containing products are purchased or used.

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

This Fact Sheet is for information and justification of the permit limits only and is not enforceable.

For renewal of discharge Permit Number AR0001210 with 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

4. PERMIT ACTIVITY.

Previous Permit Effective Date: 9/01/2004
Previous Permit Expiration Date: 8/31/2009

The permittee submitted a permit renewal application on 3/2/2009. The discharge permit is reissued for a 5-year term in accordance with regulations promulgated at 40 CFR Part 122.46(a).

DMR Review:

The Discharge Monitoring Reports (DMR's) from December 2003 through December 2008 were reviewed during the permit renewal process. The only exceedance of a permit limit was the monthly average BOD5 concentration limit at Outfall 001 in December 2006. This exceedance appears due to a typographical error based upon a review of the daily maximum concentration and the loading rates reported for the same month. The permittee has corrected the typographical error and submitted the necessary documentation to the Department. Therefore, no permit action will be taken.

Legal Order Review:

There are currently no active Consent Administrative Orders (CAOs) or Notice of Violations (NOVs) for this facility.

Use Attainability Analyses (UAAs)

A UAA was performed in the 1980's. As a result of this UAA, the fishable/swimmable uses as well as the drinking water use were removed for Coffee Creek and Mossy Lake. Reg. 2.406 and Chapter 5 of Reg. 2 do not apply to Coffee Creek and Mossy Lake. This UAA was approved by EPA Region VI.

EPA Region VI developed and proposed a UAA in 2007. It has not yet been through a public notice and comment period. That UAA is under review and has not been incorporated into Reg. 2.

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.

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

1. The outfall and the facility coordinates have been corrected.
2. The chloroform limits have changed.
3. The facility name has been corrected.
4. The BOD5 and the TSS concentration limits at Outfall 001 have changed based upon new production data.

5. Total Phosphorous and Nitrates monitoring and reporting requirements have been added to the permit at Outfall 001 and Stream Monitoring Station (SMS) 002. These requirements have been added because the permittee adds a nutrient solution which contains phosphorous and nitrates to the treatment system prior to the aerated lagoon.
6. The BOD5 mass limits at Outfall 001 have decreased. These limits are calculated using production based Effluent Limitation Guidelines contained in 40 CFR Part 430, Subpart B. A decrease in the production of fine paper is the cause of the lower BOD5 limits.
7. Parts II, III, and IV have been modified.
8. Part II of the permit now specifies that the licensed operator must hold an Advanced Industrial license.
9. BMP language has replaced the SWPPP language.
10. Several metals and pesticides have been added to the permit at Outfall 001 and SMS 002.
11. The description of the location of SMS2 has been reworded.
12. Color monitoring of the Ouachita River has been included at SMS 002.
13. A Mercury Minimization Plan has been included in Part II of the permit.

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 : 33° 06' 22.5"; 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"

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 proposed 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.

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.**

Sludge is placed in the facility's north landfill (Permit No. 292-S3N) as necessary. Sludge is mechanically dewatered. The dewatered sludge may be combined with ash, sand, and grit for use as fill material for the sludge pond closure.

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.).

a. Interim 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	Report	Report	Report µg/l	Report µg/l	once/month	24-hr composite*
Total Recoverable Copper	Report	Report	Report µg/l	Report µg/l	once/month	24-hr composite*
Total Recoverable Zinc	Report	Report	Report µg/l	Report 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.	once/day	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

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.	once/day	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).

c. **Interim 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	Report	Report	Report µg/l	Report µg/l	once/month	grab
Total Recoverable Copper	Report	Report	Report µg/l	Report µg/l	once/month	grab
Total Recoverable Zinc	Report	Report	Report µg/l	Report 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.	once/day	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. 19 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).

d. **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.	once/day	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. 19 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).

e. **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

f. **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
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

g. **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
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

Following regulations promulgated at 40 CFR Part 122.44 (1) (2) (ii), the permit limits are based on either technology-based effluent limits pursuant to 40 CFR Part 122.44 (a) or on State water quality standards and requirements pursuant to 40 CFR Part 122.44 (d), whichever are more stringent as follows:

Parameter	Water Quality-Based		Technology-Based		Previous Permit		Final Permit	
	Monthly Avg. mg/l	Daily Max. mg/l	Monthly Avg. mg/l	Daily Max. mg/l	Monthly Avg. mg/l	Daily Max. mg/l	Monthly Avg. mg/l	Daily Max. mg/l
OUTFALL 001								
BOD5 Concentration	N/A	N/A	64.4	123.8	70	135	64.4	123.8
Mass (lbs/day)	N/A	N/A	24155.4	46453.0	26310	50617	24155.4	46453.0
TSS Concentration	N/A	N/A	119.6	222.4	134	249	119.6	222.4
40 CFR 430.22, Mass (lbs/day)	N/A	N/A	44868.2	83481.1				
BPJ limits, Mass (lbs/day)	N/A	N/A	37720	70188	37720	70188	37720	70188
2,3,7,8-TCDD	N/A	N/A	Report	Report	Report	Report	Report	Report
AOX, lbs/day	N/A	N/A	2146	3276	2146	3276	2146	3276
Dieldrin	0.00091 µg/l	0.00284 µg/l	N/A	N/A	N/A	N/A	0.00091 µg/l	0.00284 µg/l
Total Recoverable Copper	22.43 µg/l	45.00 µg/l	N/A	N/A	N/A	N/A	22.43 µg/l	45.00 µg/l
Total Recoverable Zinc	200.40 µg/l	402.09 µg/l	N/A	N/A	N/A	N/A	200.40 µg/l	402.09 µg/l
Total Phosphorous	N/A	N/A	Report	Report	N/A	N/A	Report	Report
Nitrates as Nitrogen	N/A	N/A	Report	Report	N/A	N/A	Report	Report
pH	6.0 – 9.0 s.u.		5.0 – 9.0 s.u.		6.0 – 9.0 s.u.		6.0 – 9.0 s.u.	
SMS 002								

Parameter	Water Quality-Based		Technology-Based		Previous Permit		Final Permit	
	Monthly Avg. mg/l	Daily Max. mg/l	Monthly Avg. mg/l	Daily Max. mg/l	Monthly Avg. mg/l	Daily Max. mg/l	Monthly Avg. mg/l	Daily Max. mg/l
BOD5, lb/day								
October – July	8000	12000	N/A	N/A	8000	12000	8000	12000
August	7262	10893	N/A	N/A	7262	10893	7262	10893
September	5911	8867	N/A	N/A	5911	8867	5911	8867
TSS, lb/day	18000	30000	N/A	N/A	18000	30000	18000	30000
Dieldrin	0.00091 µg/l	0.00284 µg/l	N/A	N/A	N/A	N/A	0.00091 µg/l	0.00284 µg/l
Total Recoverable Copper	18.75 µg/l	37.62 µg/l	N/A	N/A	N/A	N/A	18.75 µg/l	37.62 µg/l
Total Recoverable Zinc	194.58 µg/l	390.41 µg/l	N/A	N/A	N/A	N/A	194.58 µg/l	390.41 µg/l
Total Phosphorous	N/A	N/A	Report	Report	N/A	N/A	Report	Report
Nitrates as Nitrogen	N/A	N/A	Report	Report	N/A	N/A	Report	Report
Change in Color of Receiving Stream	N/A	N/A	N/A	Report	N/A	N/A	N/A	Report
pH	6.0 – 9.0 s.u.		N/A		6.0 – 9.0 s.u.		6.0 – 9.0 s.u.	
ALL INTERNAL OUTFALLS (101, 102, and 103)								
TCDD	N/A	N/A	N/A	<10 pg/l*	N/A	<10 pg/l*	N/A	<10 pg/l*
TCDF	N/A	N/A	N/A	31.9 pg/l*	N/A	31.9 pg/l*	N/A	31.9 pg/l*
Trichlorosyringol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
3,4,5-Trichlorocatechol	N/A	N/A	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l
3,4,6-Trichlorocatechol	N/A	N/A	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l
3,4,5-Trichloroguaiacol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
3,4,6-Trichloroguaiacol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
4,5,6-Trichloroguaiacol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l

Parameter	Water Quality-Based		Technology-Based		Previous Permit		Final Permit	
	Monthly Avg. mg/l	Daily Max. mg/l	Monthly Avg. mg/l	Daily Max. mg/l	Monthly Avg. mg/l	Daily Max. mg/l	Monthly Avg. mg/l	Daily Max. mg/l
2,4,5-Trichlorophenol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
2,4,6-Trichlorophenol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
Tetrachlorocatechol	N/A	N/A	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l
Tetrachloroguaiacol	N/A	N/A	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l
2,3,4,6-Tetrachlorophenol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
Pentachlorophenol	N/A	N/A	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l
Chloroform at Outfall 101	N/A	N/A	4.78 lb/day	7.99 lb/day	4.69 lb/day	7.87 lb/day	4.78 lb/day	7.99 lb/day
Chloroform at Outfall 102	N/A	N/A	4.78 lb/day	7.99 lb/day	4.51 lb/day	7.57 lb/day	4.78 lb/day	7.99 lb/day
Chloroform at Outfall 103	N/A	N/A	4.81 lb/day	8.04 lb/day	5.02 lb/day	8.4 lb/day	4.81 lb/day	8.04 lb/day

Parameter	Water Quality or Technology	Justification
Outfall 001		
BOD5	Technology	40 CFR 430.22(a)
TSS	Technology	40 CFR 430.22(a) and continued from previous permit
2,3,7,8-TCDD	Technology	Continued from previous permit
AOX	Technology	40 CFR 430.24(a)(1)
Dieldrin	Water Quality	L.A.C. 33:IX:1113
Total Recoverable Copper	Water Quality	Reg. 2.508
Total Recoverable Zinc	Water Quality	Reg. 2.508
Total Phosphorous	Technology	Judgment of permit writer (see further explanation below this table.)
Nitrates as Nitrogen	Technology	Judgment of permit writer (see further explanation below this table.)
pH	Water Quality	Reg. 2.504

Parameter	Water Quality or Technology	Justification
SMS 002		
BOD5		
October – July	Water Quality	TMDL/WLA report approved by EPA on 01/11/2002
August	Water Quality	TMDL/WLA report approved by EPA on 01/11/2002
September	Water Quality	TMDL/WLA report approved by EPA on 01/11/2002
TSS	Water Quality	TMDL/WLA report approved by EPA on 01/11/2002
Diieldrin	Water Quality	L.A.C. 33:IX:1113
Total Recoverable Copper	Water Quality	Reg. 2.508
Total Recoverable Zinc	Water Quality	Reg. 2.508
Total Phosphorous	Technology	Judgment of permit writer (see further explanation below this table.)
Nitrates as Nitrogen	Technology	Judgment of permit writer (see further explanation below this table.)
Change in Color of Receiving Stream	Technology	Judgment of permit writer (see further explanation below this table)
pH	Water Quality	Reg. 2.504
All Internal Outfalls		
TCDD	Technology	40 CFR 430.24(a)(1)
TCDF	Technology	40 CFR 430.24(a)(1)
Trichlorosyringol	Technology	40 CFR 430.24(a)(1)
3,4,5-Trichlorocatechol	Technology	40 CFR 430.24(a)(1)
3,4,6-Trichlorocatechol	Technology	40 CFR 430.24(a)(1)
3,4,5-Trichloroguaiacol	Technology	40 CFR 430.24(a)(1)
3,4,6-Trichloroguaiacol	Technology	40 CFR 430.24(a)(1)
4,5,6-Trichloroguaiacol	Technology	40 CFR 430.24(a)(1)
2,4,5-Trichlorophenol	Technology	40 CFR 430.24(a)(1)
2,4,6-Trichlorophenol	Technology	40 CFR 430.24(a)(1)
Tetrachlorocatechol	Technology	40 CFR 430.24(a)(1)
Tetrachloroguaiacol	Technology	40 CFR 430.24(a)(1)
2,3,4,6-Tetrachlorophenol	Technology	40 CFR 430.24(a)(1)
Pentachlorophenol	Technology	40 CFR 430.24(a)(1)

The explanation for all technology-based limits may be found below in Item #13.b.iii. The calculations for all water-quality based toxics limits may be found below in Item #13.e.

Limits and Requirements Applicable at Both Outfall 001 and SMS2

The pH limits are remaining unchanged with this permit renewal.

The Department recognizes that Chapter 5 of Reg. No. 2 does not apply to Outfall 001. However, the toxics limits have been included at Outfall 001 in addition to SMS2 because the permittee cannot always monitor at SMS2 due to flooding of Mossy Lake. The limits at Outfall 001 are the numerical limits which were calculated for SMS2. The permittee will be required to monitor at both locations when Mossy Lake is not flooded. This is to ensure that there is a continuity of data at a single location.

Monitoring and reporting requirements for Total Phosphorous and Nitrates as Nitrogen have been included in the permit at Outfall 001 and SMS2 because the permittee adds a nutrient solution just prior to the aerated lagoon to aid in biological activity. Nitrites have not been included in the requirements because the MSDS of the nutrient mix does not indicate that nitrites are present. Numerical limits have not been included in the permit because water quality standards do not apply at Outfall 001 and the effluent passing through SMS2 enters the Ouachita River downstream of the Felsenthal National Wildlife Refuge via a half-mile stretch of Coffee Creek.

Color Monitoring

Comments were received during the public comment period which expressed concern about the color of the Ouachita River. The permittee has agreed to monitor the color of the Ouachita River above and below its confluence with Coffee Creek. The monitoring will take place once per calendar quarter and be done in accordance with EPA approved test methods using the platinum-cobalt scale.

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**

i. Mass limits:

The calculation of the loadings (lbs per day) uses a design flow of 45 MGD and the following equation:

$$\text{lbs/day} = \text{Concentration (mg/l)} \times \text{Flow (MGD)} \times 8.34$$

The applicable parts of 40 CFR do not require that the permit contain concentration limits for BOD5 and TSS. Therefore it is not necessary to calculate the mass limits and ratios of wastewaters from various sources to determine concentration limits. The concentration limits for BOD5 and TSS were calculated using the highest average monthly flow and the mass limits calculated for the paper mill discharge.

ii. Daily Maximum Limits:

Daily maximum limits are based on the standards contained in 40 CFR Part 430 and the CPP.

iii. Process wastewater

Outfall 001

Paper Mill

According to the permit renewal application, GP produces **257** tons per day of fine paper (Step 1) and **1502** tons per day Paperboard and Tissue Paper (Step 2).

Effluent limitations guidelines (ELG) for Bleached Paper grade Kraft and Soda Subcategory (40 CFR Part 430.22) cover this industry. Final effluent limitations for BOD5 and TSS are based on 40 CFR Part 430.22 Subpart B (Please see below for calculations).

Calculations:

Step 1:

Effluent limitations based on production of **257** tons/day are as follows:

BPT Effluent Limitations		
Pollutant	Daily Maximum (lbs/1000 lb)	Monthly Average (lbs/1000 lb)
BOD5	10.6	5.5
TSS	22.15	11.9
pH	5.0 – 9.0 s.u. at all times	

Average Daily Production (1000 lbs/day)= 514¹

¹ ((257 tons/day) X (2000 lbs/ton)) / 1000 = 514

Monthly Average

<u>Parameter</u>	<u>Production</u> (Klbs/day)	<u>X</u>	<u>EG Factor</u> (lbs/Klbs)	<u>BPT Limit</u> lbs/day
BOD5	514	X	5.5	2827.0
TSS	514	X	11.9	6116.6

Daily Maximum

<u>Parameter</u>	<u>Production</u> (Klbs/day)	<u>X</u>	<u>EG Factor</u> (lbs/Klbs)	<u>BPT Limit</u> lbs/day
BOD5	514	X	10.6	5448.4
TSS	514	X	22.15	11385.1

Step 2:

Effluent limitations based on production of **1502** tons/day are as follows:

BPT Effluent Limitations		
Pollutant	Daily Maximum (lbs/1000 lb)	Monthly Average (lbs/1000 lb)
BOD5	13.65	7.1
TSS	24	12.9
pH	5.0 – 9.0 s.u. at all times	

Average Daily Production (1000 lbs/day)= 3004¹
¹ ((1502 tons/day) X (2000 lbs/ton)) / 1000 = 3004

Monthly Average

<u>Parameter</u>	<u>Production</u> (Klbs/day)	<u>X</u>	<u>EG Factor</u> (lbs/Klbs)	<u>BPT Limit</u> lbs/day
BOD5	3004	X	7.1	21328.4
TSS	3004	X	12.9	38751.6

Daily Maximum

<u>Parameter</u>	<u>Production</u> (Klbs/day)	<u>X</u>	<u>EG Factor</u> (lbs/Klbs)	<u>BPT Limit</u> lbs/day
BOD5	3004	X	13.65	41004.6
TSS	3004	X	24	72096.0

Step 3 = Step 1 + Step 2

<u>Parameter</u>	<u>Monthly Average, lbs/day</u>	<u>Daily Maximum, lbs/day</u>
BOD5	24155.4	46453.0
TSS	44868.2	83481.1

During renewal of the last permit, the technology-based TSS limits at Outfall 001 were reduced to 37720 lbs/day (Monthly Average) and 70188 lbs/day (Daily Maximum) with the agreement of the permittee based on the performance of the treatment system. However, the concentration limits for TSS were based on the above calculated technology limits. This methodology will continue to be used in this permit.

AOX

The Adsorbable Organic Halogen (AOX) limits were calculated based on the annual **unbleached** pulp production and effluent guidelines representing the application of the Best Available Technology (BAT) economically achievable (40 CFR Part 430.24). The Permittee has reported an average unbleached pulp production of 1735 tons per day. Based on 40 CFR 430.24(a)(1), AOX limits must be determined at the end of the pipe. Therefore, production of 1735 tons/day has been used to calculate AOX limits as follows:

40 CFR 430.24, BAT Effluent Limitations		
Pollutant	Daily Max kg/kkg (lbs/1000 lbs)	Monthly Average kg/kkg (lbs/1000 lbs)
AOX	0.951	0.623

Calculations

Average Daily Production (1000 lbs/day) = 3470¹
¹ ((1735 ADT/day) x (2000 lbs/ton)) / 1000 = 3470

Monthly Average

<u>Parameter</u>	<u>Production</u> x	<u>ELG Factor</u>	<u>BAT Limit</u>
	(1000 lbs/day) x	(lbs/1000lbs)	lb/day
AOX	3470 x	0.623	2161.81

Daily Max

<u>Parameter</u>	<u>Production x ELG Factor</u>	<u>BAT Limit</u>
	(1000 lbs/day) x	(lbs/1000lbs)
AOX	3470 x	0.951
		3299.97

In accordance with 40 CFR 430.01(i), Method 1650 and minimum level (ML) of 20 µg/l apply to AOX.

Although the inclusion of the AOX limits calculated above do not violate any anti-backsliding or anti-degradation standards, the permittee has agreed to maintaining the AOX limits from the previous permit. These limits are 2,146 lbs/day on a monthly average and 3,276 lbs/day for a daily maximum.

40 CFR 430.24(d) states that effluent limitations for pentachlorophenol and trichlorophenol apply to all dischargers subject to this section in accordance with the previous subcategorization scheme unless the discharger certifies to the permitting authority that it is not using these compounds as biocides. Also, for non-continuous dischargers, concentration limitations (mg/l) shall apply. Concentration limitations will only apply to non-continuous dischargers.

The permittee has certified that pentachlorophenol and trichlorophenol are not used as biocides at this facility. Also, this facility is a continuous discharger. Therefore, the BAT limits set forth in 40 CFR 430.24(d) do not apply to this facility.

Dioxin

In the previous permit, it was determined that the technology based requirement of < 10 pg/l for Dioxin (2,3,7,8-TCDD) at the internal outfalls was more stringent than the Dioxin technology (BPJ) permit limits at Outfall 001. The Dioxin limits at Outfall 001 were changed to monitor and report. The Dioxin monitoring and reporting requirements at Outfall 001 are therefore continued unchanged from the previous permit.

LAC 33:IX:713.C requires a daily maximum 2,3,7,8-TCDD limit of no more than 20 pg/l. As the limits contained for the internal outfalls is less than the limit cited in the Louisiana Water Quality Regulations, no additional action (as compared to the previous permit) is necessary to protect the water quality of the State of Louisiana in regards to dioxin.

INTERNAL OUTFALLS

Chloroform

The Chloroform limits were calculated based on the annual **unbleached** pulp production and effluent guidelines representing the application of the Best Available Technology (BAT) economically achievable (40 CFR Part 430.24). The Permittee has reported an average unbleached pulp production of 1735 tons per day. Based on 40 CFR 430.24(a)(1), Chloroform limits must be determined separately for each bleach line. The production level associated with the softwood line is 581 tpd. The production level associated with the two hardwood lines is 577 tpd per line (total of 1154 tpd).

40 CFR 430.24, BAT Effluent Limitations		
Pollutant	Daily Max g/kgg (lbs/1,000,000 lbs)	Monthly Average g/kgg (lbs/1,000,000 lbs)
Chloroform	6.92	4.14

Calculations

Hardwood lines, Internal Outfalls 101 and 102

Average Daily Production (1,000,000 lbs/day) = 1.154¹

¹ ((577 ADT/day) x (2000 lbs/ton)) / 1,000,000 = 1.154 (per line)

Monthly Average

<u>Parameter</u>	<u>Production</u>	x	<u>ELG Factor</u>	<u>BAT Limit</u>
	(1,000,000 lbs/day)		(lbs/1,000,000lbs)	lb/day
Chloroform	1.154	x	4.14	4.78 (per line)

Daily Max

<u>Parameter</u>	<u>Production</u>	x	<u>ELG Factor</u>	<u>BAT Limit</u>
	(1,000,000 lbs/day)		(lbs/1,000,000lbs)	lb/day
Chloroform	1.154	x	6.92	7.99 (per line)

Softwood line, Internal Outfall 103

Average Daily Production (1,000,000 lbs/day) = 1.162¹

¹ ((581 ADT/day) x (2000 lbs/ton)) / 1,000,000 = 1.162

Monthly Average

<u>Parameter</u>	<u>Production</u>	x	<u>ELG Factor</u>	<u>BAT Limit</u>
	(1,000,000 lbs/day)		(lbs/1,000,000lbs)	lb/day
Chloroform	1.162	x	4.14	4.81

Daily Max

<u>Parameter</u>	<u>Production</u>	x	<u>ELG Factor</u>	<u>BAT Limit</u>
	(1,000,000 lbs/day)		(lbs/1,000,000lbs)	lb/day
Chloroform	1.162	x	6.92	8.04

Other Parameters

In accordance with 40 CFR 430.24(a)(1), the following parameters have been included in the permit for each of the three internal outfalls. With the exception of 2,3,7,8-Tetrachlorodibenzofuran (TCDF), the permit limits are the minimum levels (ML) specified in 40 CFR 430.01(i).

Parameter	Permit Limit
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	<10 pg/l
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	31.9 pg/l
Trichlorosyringol	<2.5 µg/l
3,4,5-Trichlorocatechol	<5.0 µg/l
3,4,6-Trichlorocatechol	<5.0 µg/l
3,4,5-Trichloroguaiacol	<2.5 µg/l
3,4,6-Trichloroguaiacol	<2.5 µg/l
4,5,6-Trichloroguaiacol	<2.5 µg/l
2,4,5-Trichlorophenol	<2.5 µg/l
2,4,6-Trichlorophenol	<2.5 µg/l
Tetrachlorocatechol	<5.0 µg/l
Tetrachloroguaiacol	<5.0 µg/l
2,3,4,6-Tetrachlorophenol	<2.5 µg/l
Pentachlorophenol	<5.0 µg/l

Plywood Plant and Studmill

In accordance with 40 CFR 429.43, any existing point source subject to this subpart (40 CFR Part 429, Subpart C), must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of best available technology economically achievable (BAT): There shall be no discharge of process wastewater pollutants.

In accordance with 40 CFR 429.123, any existing point source subject to this subpart (40 CFR Part 429, Subpart K), must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of best available technology economically achievable (BAT): There shall be no discharge of process wastewater pollutants.

However, the Federal Register, Vol. 39, No. 76 dated Thursday, April 18, 1974, in response to Comment #15 on 40 CFR Part 429, states the following:

“A ‘no discharge of process wastewater’ limitation does allow a plant to discharge wastewater to an available treatment system which might be present where a number of

timber products processing operations are conducted; however, no credit will be given for the wastewater pollutants attributable to the point source categories included in Part 429 that have a no discharge limitation.”

The effluent description will reflect that the wastewaters that may be discharged through Outfall 001 include process wastewaters from the plywood plant and studmill.

Chemical Plant

The permittee stated in an e-mail dated 06/10/2009, that, in addition to boiler blowdown and cooling tower blowdown, the following types of wastewater are discharged from the chemical plant:

From the Formaldehyde plant – RCI distillates

From the Resin Manufacturing – Glass Mat distillates, Prepolymer distillates, Vacuum sump discharges, and Red water impoundment discharges

From the Tall Oil plant – API separator discharges

BAT Requirements

The permittee is not subject to the Best Available Technology Economically Achievable (BAT) requirements of 40 CFR Part 414 (Organic Chemicals, Plastics, and Synthetic Fibers), Subpart E (Thermosetting Resins) and Subpart F (Commodity Organic Chemicals). The biological treatment associated with this permit occurs after all sources of wastewater (process wastewater from the paper mill, stormwater runoff, City of Crossett’s wastewater, etc.) have commingled. Therefore, the biological treatment is not considered to be end-of-pipe.

BPT Requirements

The permittee is subject to the Best Practicable Control Technology currently available (BPT) requirements of 40 CFR Part 414 (Organic Chemicals, Plastics, and Synthetic Fibers), Subpart E (Thermosetting Resins) and Subpart F (Commodity Organic Chemicals). The permittee is also subject to the requirements of 40 CFR Part 454 (Gum and Wood Chemicals Manufacturing Point Source Category), Subpart D (Tall Oil Rosin, Pitch and Fatty Acids Subcategory). These subparts contain Effluent Limitation Guidelines for BOD5 and TSS in pounds of the effluent characteristic per 1,000 pounds of product.

The pounds of BOD5 and TSS which could be discharged as a result of the operations at the Chemical Plant would normally be calculated and then added to the BOD5 and TSS limits calculated for the paper mill and other sources of wastewater at this facility. However, the permittee has demonstrated that the limits set based on the paper mill alone

are adequate to cover all of the various operations at this facility. Therefore, no additional calculations will be done at this time. (Note: This methodology has been continued from the previous permit.)

SMS 002

BOD5 and TSS limits as stated in the permit on page 3 of Part IA are based on Waste Load Allocation which was done by the permittee and approved by EPA and ADEQ during the last permit renewal. The loading limits apply **when Mossy Lake is not flooded**; otherwise the permittee must comply with the BOD5 and TSS limits at Outfall 001.

c. Stormwater runoff

All stormwater runoff discharges which are not routed through Outfall 001 are covered under the general permit for stormwater runoff associated with industrial activity. (See tracking no. ARR00A776.) Therefore, stormwater pollution prevention plan (SWPPP) requirements have not been included in this permit. The permit will continue to contain conditions requiring Best Management Practices (BMPs). This does not violate the anti-backsliding requirements contained in 40 CFR 122.44(l) because the permit has not been relieved of the SWPPP requirements.

d. 208 Plan (Water Quality Management Plan)

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

e. Toxics Pollutants

A. Toxics Pollutants

(1) Post Third Round Policy and Strategy

Section 101 of the Clean Water Act (CWA) states that "...it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited..." To insure that the CWA's prohibitions on toxic discharges are met, EPA has issued a "Policy for the Development of Water Quality-Based Permit Limitations by Toxic Pollutants"(49 FR 9016-9019, 3/9/84). In support of the national policy, Region 6 adopted the "Policy for post Third Round NPDES Permitting" and the "Post Third Round NPDES Permit Implementation Strategy" on October 1, 1992. The Regional policy and strategy are designed to insure that no source will be allowed to discharge any wastewater which (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical State water quality standard resulting in non-conformance with the provisions of 40 CFR Part

122.44(d); (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation which threatens human health.

(2) Implementation

The State of Arkansas is currently implementing EPA's Post Third-Round Policy in conformance with the EPA Regional strategy. The 5-year discharge permits contain technology-based effluent limitations reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, or where there are no applicable technology-based limits, additional water quality-based effluent limitations and/or conditions are included in the discharge permits. State narrative and numerical water quality standards from Regulation No. 2 are used in conjunction with EPA criteria and other available toxicity information to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls.

(3) Priority Pollutant Scan

In accordance with the regional policy ADEQ has reviewed and evaluated the effluent in evaluating the potential toxicity of each analyzed pollutant:

- a. The results were evaluated and compared to EPA's Minimum Quantification Levels (MQLs) to determine the potential presence of a respective toxic pollutant. Those pollutants which are greater than or equal to the MQLs are determined to be reasonably present in the effluent and an evaluation of their potential toxicity is necessary.
- b. Those pollutants with one datum shown as "non-detect" (ND), providing the level of detection is equal to or lower than MQL are determined to be not potentially present in the effluent and eliminated from further evaluation.
- c. Those pollutants with a detectable value even if below the MQL are determined to be reasonably present in the effluent and an evaluation of their potential toxicity is necessary.
- d. For those pollutants with multiple data values and all values are determined to be non-detect, therefore no further evaluation is necessary. However, where data set includes some detectable concentrations and some values as ND, one-half of the detection level is used for those values below the level of detection to calculate the geometric mean of the data set.

The concentration of each pollutant after mixing with the receiving stream was compared to the applicable water quality standards as established in the

Arkansas Water Quality Standards, Reg. No. 2 and with the aquatic toxicity, human health, and drinking water criteria obtained from the "Quality Criteria for Water, 1986 (Gold Book)". The manner in which the Instream Waste Concentrations are calculated may be found on page 2 of each of the attachments.

I. Aquatic Toxicity, Bioaccumulation, and Drinking Water

Arkansas Requirements

As stated on page A-31 of Reg. 2, Chapter 5 of Reg. 2 does not apply to Mossy Lake and Coffee Creek. Therefore, toxics limits based on levels in the effluent at Outfall 001 have not been calculated.

SMS2 is a monitoring point located approximately 2.5 miles upstream of the Arkansas/Louisiana state line. The methods for calculating the background flows based upon the 7Q10, TSS, hardness, etc. are based upon ADEQ's CPP.

Stream Monitoring Station (SMS2)		
Flow	45 MGD = 69.525 cfs	Previous Permit
7Q10	1200 cfs	EPA*
TSS	5.5 mg/l	CPP
Hardness as CaCO ₃	28 mg/l	CPP
pH	7.01 s.u.	OUA008B

*Letter dated July 3, 2001.

Louisiana Requirements

The flows (for acute, chronic, and bioaccumulation) are based upon the requirements of Title 33, Part IX, Subpart I, Section 1115, Table 2a.

Stream Monitoring Station (SMS2)		
Flow	45 MGD = 69.525 cfs	Previous Permit
7Q10	1200 cfs	EPA*
TSS	6 mg/l	E-mail**
Hardness as CaCO ₃	38.4 mg/l	E-mail**
pH	7.01 s.u.	OUA008B

*Letter dated July 3, 2001.

** These values were received via e-mail from Jeremy "Todd" Franklin of LDEQ on 06/16/2009.

(4) Water Quality Standards for Metals and Cyanide

Standards for Chromium (VI), Mercury, Selenium, and Cyanide are expressed as a function of the pollutant's water-effect ratio (WER), while standards for cadmium, chromium (III), copper, lead, nickel, silver, and zinc are expressed as a function of the pollutant's water-effect ratio, and as a function of hardness.

The Water-effect ratio (WER) is assigned a value of 1.0 unless scientifically defensible study clearly demonstrates that a value less than 1.0 is necessary or a value greater than 1.0 is sufficient to fully protect the designated uses of the receiving stream from the toxic effects of the pollutant.

The WER approach compares bioavailability and toxicity of a specific pollutant in receiving water and in laboratory test water. It involves running toxicity tests for at least two species, measuring LC50 for the pollutant using the local receiving water collected from the site where the criterion is being implemented, and laboratory toxicity testing water made comparable to the site water in terms of chemical hardness. The ratio between site water and lab water LC50 is used to adjust the national acute and chronic criteria to site specific values.

(5) Conversion of Dissolved Metals Criteria for Aquatic Life to Total Recoverable Metal

Metals criteria established in Regulation No. 2 for aquatic life protection are based on dissolved metals concentrations and hardness values (See Page 6 of Attachment 1). However, Federal Regulations cited at 40 CFR 122.45(c) require that effluent limitations for metals in discharge permits be expressed as total recoverable (See Attachments 1 and 2). Therefore a dissolved to the total recoverable metal conversion must be implemented. This involves determining a linear partition coefficient for the metal of concern and using this coefficient to determine the fraction of metal dissolved, so that the dissolved metal ambient criteria may be translated to a total effluent limit. The formula for converting dissolved metals to total recoverable metals for streams and lakes are provided in Section 5.25 of the CPP and Region 6 Implementation Guidance for Arkansas Water Quality Standards promulgated at 40 CFR Part 131.36.

(6) Comparison of the submitted information with the water quality standards and criteria

(a) SMS002

The following pollutants were determined to be present at SMS 002 as reported by the permittee.

Arkansas Standards

Pollutant	Concentration Reported**, µg/l	MQL Required by ADEQ's CPP
Total Recoverable Cadmium	0.765	1
Total Recoverable Chromium	5.32	10*
Hexavalent Chromium, Dissolved	5.32	10*
Total Recoverable Copper	7.336	0.5
Total Recoverable Lead	1.769	0.5
Total Recoverable Mercury	0.0052	0.005
Total Recoverable Nickel	8.322	0.5
Total Recoverable Selenium	5.315	5
Total Recoverable Zinc	145.20	20
Bis(2-ethylhexyl) phthalate	2.679	10*
Gamma-BHC (a/k/a Lindane)	0.0492	0.05
Delta-BHC	0.0319	0.05*
Dieldrin	0.0035***	0.02
Alpha-endosulfan	0.0252	0.01

*Actual detection level achieved was lower than what was required.

**Geometric mean of two reported values.

***Geometric mean of five reported values.

Louisiana Standards

Pollutant	Concentration Reported, µg/l	MLQ Required by LDEQ**
Total Recoverable Cadmium	0.765	1
Total Recoverable Chromium	5.32	10*
Hexavalent Chromium, Dissolved	5.32	10*
Total Recoverable Copper	7.336	10
Total Recoverable Lead	1.769	5
Total Recoverable Mercury	0.0052	0.2*
Total Recoverable Nickel	8.322	40
Total Recoverable Zinc	145.20	20
Gamma-BHC (a/k/a Lindane)	0.0492	0.05
Dieldrin	0.0035***	0.1
Alpha-endosulfan	0.0252	0.1*

*Actual detection level achieved was lower than what was required.

**Based on *Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, Water Quality Management Plan, Volume 3*. Dated April 16, 2008 (Version 6). Obtained from LDEQ's web site on June 12, 2009.

***Geometric mean of five reported values.

ADEQ has determined from the information submitted by the permittee that reasonable potential for exceedances of water quality standards exists for some of the parameters listed above. Permit action will be taken for the parameters for which the permittee demonstrated reasonable potential for exceedances of the water quality or bioaccumulation standards (See Attachments 1 and 2).

(b) Aquatic Toxicity

(i) Pollutants with numerical water quality standards

a. SMS 002

ADEQ has determined from the information submitted by the permittee that there is a reasonable potential for the discharge to cause an instream excursion above the acute and/or chronic numeric standards as specified in the Arkansas Water Quality Standards, Reg.

No. 2 and/or in Louisiana's Water Quality Regulations at L.A.C. 33:IX:1113 (See Attachments 1 and 2).

ADEQ has identified the following toxicants in the discharge in amounts which could potentially have a toxic impact on the receiving stream:

Chronic Aquatic Toxicity Results						
Pollutant	C _e , µg/l	C _e X 2.13	AR IWC, µg/l	AR WQS, µg/l	LA IWC, µg/l	LA WQS, µg/l
Total Recoverable Zinc	251	534.63	113.62	109.63	*	*

*Reasonable potential only demonstrated based upon Arkansas' requirements.

Acute Aquatic Toxicity Results						
Pollutant	C _e , µg/l	C _e X 2.13	AR IWC, µg/l	AR WQS, µg/l	LA IWC, µg/l	LA WQS, µg/l
Total Recoverable Zinc	251	534.63	282.97	120.05	359.02	159.70

IWC's have been calculated in the manner described on page 2 of the attachments.

b. Permit Action

Under Federal Regulation 40 CFR Part 122.44(d), as adopted by Regulation No. 6, if a discharge poses the reasonable potential to cause or contribute to an exceedance above a water quality standard, the permit must contain an effluent limitation for that pollutant. Effluent limitations for the toxicants listed above have been derived in a manner consistent with the Technical Support Document (TSD) for Water Quality-based Toxics Control (EPA, March 1991), the State's implementations procedures, and 40 CFR Part 122.45(c).

Permit Limit Determination

The Department recognizes that background data exists for the reach of the Ouachita River into which Coffee Creek flows. However, the accuracy of this data is questionable as evidenced by the stream segment's categorization on the 303(d) list. Background concentrations of 5.92 µg/l and 23.32 ug/l were used for Total Recoverable Copper and Total Recoverable Zinc, respectively. These

values represent the geometric mean of the data obtained for monitoring station OUA0008B () for the time period of January 2006 through December 2009. Data obtained on 9/5/2007, 3/17/2008, and 9/2/2008 were not used because the data points were statistically inconsistent with the other data or of questionable accuracy.

The instream waste load allocation (WLA), which is the level of effluent concentration that would comply with the water quality standard (WQS) of the receiving stream, is calculated for both chronic and acute WLA using the following equations:

$$WLA_c = (WQS \times (Q_d + Q_b) - Q_b \times C_b) / Q_d$$

Where:

WLA_c = chronic waste load allocation ($\mu g/l$)

Q_d = discharge flow (cfs)

$Q_b = 0.25 \times 7Q_{10}$ (cfs) @ SMS2 for AR WQS

$Q_b = 0.33 \times 7Q_{10}$ (cfs) @ SMS2 for LA WQS

C_b = background concentration ($\mu g/l$)

WQS = chronic aquatic toxicity standards ($\mu g/l$)

and;

$$WLA_a = (WQS \times (Q_d + Q_b) - Q_b \times C_b) / Q_d$$

Where:

WLA_a = acute waste load allocation ($\mu g/l$)

Q_d = discharge flow (cfs)

$Q_b = 0.06 \times 7Q_{10}$ (cfs) @ SMS 002 for AR WQS

$Q_b = 0.033 \times 7Q_{10}$ (cfs) @ SMS 002 for LA WQS

C_b = background concentration ($\mu g/l$)

WQS = acute aquatic toxicity standards ($\mu g/l$)

The long term average (LTA) effluent concentration is then calculated based on the chronic and acute WLA as follows:

$$LTA_c = 0.72 \times WLA_c$$

$$LTA_a = 0.57 \times WLA_a$$

The lowest of these two (2) values is selected as being the limiting LTA. The limiting LTA is then used to calculate the monthly average

(AML) and daily maximum (DML) for the final limits. AML and DML are calculated as follows:

$$\text{AML} = 1.55 \times \text{Limiting LTA}$$

$$\text{DML} = 3.11 \times \text{Limiting LTA}$$

Limits included in the permit are as follows:

SMS2

The reach of the Ouachita River which receives the effluent from this facility (Reach #002 in H.U.C. 08040202) is on the 303(d) due to Zinc. The permittee demonstrated reasonable potential for water quality violations due to the levels of Total Recoverable Zinc. Permit limits were determined using both ADEQ's and LDEQ's permitting procedures. The more stringent limits were those calculated using ADEQ's permitting procedures. Therefore, those limits were placed in the permit.

The permittee did not demonstrate reasonable potential for water quality violations due to Total Recoverable Copper or Total Recoverable Mercury in either Arkansas or Louisiana. However, the reach of the Ouachita River which receives the effluent from this facility is on the 303(d) list due to Copper. Therefore, permit limits based on ADEQ's permitting procedures have been included in the permit.

In lieu of numerical limits for Total Recoverable Mercury, the Department has included a Mercury Minimization Plan in Part II of the permit. This plan is suitable for this facility since the permittee has not demonstrated reasonable potential for water quality violations due to the levels of Total Recoverable Mercury in the effluent. Monitoring and reporting requirements for Total Recoverable Mercury will be removed from Part IA of the permit. However, monitoring and reporting requirements for this parameter will be included in Part II of the permit because such requirements are an important part of the plan.

The Department will reopen the permit to include any TMDLs which are finalized during the term of the permit.

The permittee only demonstrated reasonable potential for exceedances of aquatic toxicity standards for Dieldrin in Arkansas. Therefore, ADEQ's permitting procedures were used to calculate the aquatic

toxicity based limits for Dieldrin. The permittee did demonstrate reasonable potential for exceedances of Louisiana's bioaccumulation standards. Those limits are calculated in Item (c) below. The more stringent of the two sets of limits will be included in the permit.

Numerical Aquatic Toxicity Limits		
Parameter	AML, µg/l	DML, µg/l
Total Recoverable Copper	18.75	37.62
Total Recoverable Zinc	194.58	390.41

(ii) Pollutants without applicable water quality standards

ADEQ has determined from the information submitted by the permittee that there is not a reasonable potential for the discharge to cause an instream excursion above the acute and/or chronic criteria as specified in the Gold Book (See Attachments 1, 2, and 3).

(c) Human Health (Bioaccumulation) Limits

i. Pollutants with numerical water quality standards

ADEQ has determined from the information submitted by the permittee that there is not a reasonable potential for the discharge to cause an instream excursion above the state numeric bioaccumulation standards as specified in Reg. 2.508. However, ADEQ has determined that there is a reasonable potential for an instream excursion above the State of Louisiana's numeric bioaccumulation standard for Dieldrin.

Bioaccumulation Standard Results				
Pollutant	C _e , µg/l	C _e X 2.13	IWC, µg/l	La WQS, µg/l
Dieldrin	0.113	0.2407	0.01	0.00005

IWC's have been calculated in the manner described above.

Permit Action

Under Federal Regulation 40 CFR Part 122.44(d), as adopted by Regulation No. 6, if a discharge poses the reasonable potential to cause or contribute to an exceedance above a water quality standard, the permit

must contain an effluent limitation for that pollutant. Effluent limitations for the above have been derived in a manner consistent with the Technical Support Document (TSD) for Water Quality based Toxics Control (EPA, March 1991), the Implementation of the Arkansas Water Quality Standards via Permitting, and 40 CFR Part 122.45(c) as follows:

$$WLA = (WQS \times (Q_d + Q_b) - Q_b \times C_b) / Q_d$$

Where:

- WLA = waste load allocation ($\mu\text{g/l}$)
- Q_d = discharge flow (cfs)
- Q_b = long term average flow (cfs)
- C_b = background concentration ($\mu\text{g/l}$)
- WQS = bioaccumulation standard ($\mu\text{g/l}$)

The instream WLA concentration, which is the level of effluent concentration that would comply with water quality standards (WQS) in the receiving stream, is used to calculate the monthly average (AML) and daily maximum (DML) final limits as follows:

$$AML = WLA$$

$$DML = AML \times (DML/AML)$$

where the factor DML/AML is found in Table 5-3 of TSD. Limits included in the permit are as follows:

Louisiana Human Health (Bioaccumulation) limits		
Pollutant	AML, $\mu\text{g/l}$	DML, $\mu\text{g/l}$
Dieldrin	0.00091	0.00284

The Dieldrin limit based upon compliance with Louisiana's bioaccumulation standard is more stringent than the limit based upon compliance with ADEQ's chronic toxicity standard. Therefore, the permit will contain limits of 0.00091 $\mu\text{g/l}$ for a monthly average and 0.00284 $\mu\text{g/l}$ for a daily maximum.

The inclusion of the Dieldrin limit is based on one test result. Therefore, if Dieldrin is not detected at SMS 002 during the interim period of the permit, the final Dieldrin limits will be removed from the permit through a

modification. The permittee must request the modification 6 months prior to the effective date of the final limits.

ii. Pollutants without applicable water quality standards

ADEQ has determined from the information submitted by the permittee that there is not a reasonable potential for the discharge to cause exceedance of bioaccumulation criterion as specified in the Gold Book (Quality Criteria for Water 1986).

iii. Drinking Water Supply Protection

ADEQ has determined from the information submitted by the permittee that there is not a reasonable potential for the discharge to cause an instream excursion above the drinking water criteria as specified in the Gold Book.

14. WHOLE EFFLUENT TOXICITY.

Section 101(a)(3) of the Clean Water Act states that ".....it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited." In addition, ADEQ is required under 40 CFR Part 122.44(d)(1), adopted by reference in Regulation 6, to include conditions as necessary to achieve water quality standards as established under Section 303 of the Clean Water Act. Arkansas has established a narrative criteria which states "toxic materials shall not be present in receiving waters in such quantities as to be toxic to human, animal, plant or aquatic life or to interfere with the normal propagation, growth and survival of aquatic biota."

Whole effluent toxicity (WET) testing is the most direct measure of potential toxicity which incorporates the effects of synergism of effluent components and receiving stream water quality characteristics. It is the national policy of EPA to use bioassays as a measure of toxicity to allow evaluation of the effects of a discharge upon a receiving water (49 Federal Register 9016-9019, March 9, 1984). EPA Region 6 and the State of Arkansas are now implementing the Post Third Round Policy and Strategy established on September 9, 1992, and EPA Region 6 Post-Third Round Whole Effluent Toxicity Testing Frequencies, revised March 13, 2000. Whole effluent toxicity testing of the effluent is thereby required as a condition of this permit to assess potential toxicity. The whole effluent toxicity testing procedures stipulated as a condition of this permit are as follows:

TOXICITY TESTS

FREQUENCY

Chronic WET Testing

Once/2 months

Requirements for measurement frequency are based on the CPP.

Since 7Q10 is less than 100 cfs (ft³/sec) and dilution ratio is less than 100:1, chronic WET testing requirements will be included in the permit.

The calculations for dilution used for chronic WET testing are continued unchanged from the previous permit.

$$CD = [(2.8 \times D \times 3.14^{0.5}) / y] \times 100$$

D = Diameter of discharge pipe = 4 ft and y = 25 for ZID

$$CD = [(2.8 \times 4 \times 3.14^{0.5}) / 25] \times 100 = \mathbf{80\%}$$

Toxicity tests shall be performed in accordance with protocols described in "Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms", EPA/600/4-91/002, July 1994. A minimum of five effluent dilutions in addition to an appropriate control (0%) are to be used in the toxicity tests. These additional effluent concentrations are **25%, 34%, 45%, 60%, and 80%** (See Section 6.3 of the CPP). The low-flow effluent concentration (critical dilution) is defined as **80%** effluent. The requirement for chronic WET tests is based on the magnitude of the facility's discharge with respect to receiving stream flow. The stipulated test species, *Ceriodaphnia dubia* and the Fathead minnow (*Pimephales promelas*) are indigenous to the geographic area of the facility; the use of these is consistent with the requirements of the State water quality standards. The WET testing frequency has been established to provide data representative of the toxic potential of the facility's discharge, in accordance with the regulations promulgated at 40 CFR Part 122.48.

Results of all dilutions as well as the associated chemical monitoring of pH, temperature, hardness, dissolved oxygen conductivity, and alkalinity shall be reported according to EPA/600/4-91/002, July 1994 and shall be submitted as an attachment to the Discharge Monitoring Report (DMR).

This permit may be reopened to require further WET testing studies, Toxicity Reduction Evaluation (TRE) and/or effluent limits if WET testing data submitted to the Department shows toxicity in the permittee's discharge. Modification or revocation of this permit is subject to the provisions of 40 CFR 122.62, as adopted by reference in ADEQ Regulation No. 6. Increased or intensified toxicity testing may also be required in accordance with Section 308 of the Clean Water Act and Section 8-4-201 of the Arkansas Water and Air Pollution Control Act (Act 472 of 1949, as amended).

Administrative Records

The following information summarized toxicity test submitted by the permittee during the term of the current permit at.

Permit Number: AR0001210 AFIN: 02-00013 Outfall Number: 001
 Date of Review: 6/3/2009 Reviewer: M. Barnett
 Facility Name: Crossett Paper Operations
 Previous Dilution series: 25, 34, 45, 60, 80 Proposed Dilution Series: 25, 34, 45, 60, 80
 Previous Critical Dilution: 80 Proposed Critical Dilution: 80
 Previous TRE activities: None

Frequency recommendation by species

Pimephales promelas (Fathead minnow): quarterly
Ceriodaphnia dubia (water flea): bi-monthly

TEST DATA SUMMARY

TEST DATE	Vertebrate		Invertebrate	
	Lethal NOEC	Sub-Lethal NOEC	Lethal NOEC	Sub-Lethal NOEC
Jun-04	100	50	100	100
Sep-04	80	60	80	80
Oct-04	80	80		
Nov-04	80	80		
Dec-04	80	80	80	80
Dec-04	80	80		
Mar-05	80	80	80	80
Jun-05	80	80	80	80
Sep-05	80	80	80	80
Dec-05	80	60	80	80
Mar-06	80	80	80	80
Jun-06	80	80	80	80
Sep-06	80	80	80	80
Dec-06	80	80	80	80
Mar-07	80	80	80	60*
Jun-07	80	80	80	60*
Aug-07			80	80
Sep-07	80	80	80	25*
Oct-07			80	80
Dec-07	80	80	80	60**
Mar-08	80	80	80	80
Jun-08	80	80	80	25**
Sep-08	80	80	80	80
Dec-08	80	80	80	60**
Mar-09	80	80	80	80

Failures Noted in BOLD

* Test conducted by Bio-Analytical Laboratories
 ** Test conducted by Environ

REASONABLE POTENTIAL CALCULATIONS

	Vertebrate Lethal	Vertebrate Sub-Lethal	Invertebrate Lethal	Invertebrate Sub-Lethal
Min NOEC Observed	80	50	80	25
TU at Min Observed	1.25	2.00	1.25	4.00
Count	23	23	22	22
Failure Count	0	3	0	6
Mean	1.239	1.319	1.239	1.564
Std. Dev.	0.052	0.191	0.053	0.808
CV	0	0.1	0	0.5
RPMF	1.1	1.1	1.1	1.3
Reasonable Potential	1.100	1.760	1.100	4.160

PERMIT ACTION

No lethal failures were noted for *P. promelas* or *C. dubia*. Lethal limits are not required at this time.

Continuous Planning Process, E.1.c "For permittees with a design flow greater than or equal to 1 MGD and potential toxicity problems (e.g. failed pre-permit test, substantial industrial contribution and no pretreatment) the toxicity testing frequency may be twelve times a year for both species".

In response to *C. dubia* sub-lethal failures, during 2007 the permittee conducted a series of split sample tests. Based on the results of these tests, the permittee began using a different ADEQ certified WET testing lab.

However, since there have been three sub-lethal *C. dubia* failures during the past 2 years, *C. dubia* WET testing shall occur bi-monthly. According to Part II.21.6.a of the draft permit; at end of the first year, if no lethal and/or sub-lethal failures have occurred the permittee is eligible to request a reduction in *C. dubia* WET testing frequency to quarterly. After an additional year of no lethal and/or sub-lethal failures the permittee is eligible to request a reduction in *C. dubia* WET testing frequency to semi-annual.

P. promelas lethal - WET Monitoring
P. promelas sub-lethal - WET Monitoring
C. dubia lethal - WET Monitoring
C. dubia sub-lethal - WET Monitoring

15. SAMPLE TYPE AND FREQUENCY.

Outfall 001 and SMS 002

Requirements for sample type and sampling frequency at Outfall 001 and SMS 002 have been based on the current discharge permit for those parameters carried forth from the previous permit. The changes to sample type or sampling frequency for a parameter carried forth from the previous permit are as follows:

- a. WET testing frequency – the WET testing frequency has been increased to once every two months based on the recommendation of the Water Division’s Planning Branch.
- b. AOX – frequency has been reduced to three per week based upon effluent data submitted during the term of the current permit and EPA guidance.

The sample type and sampling frequency for the new parameters were based upon the CPP and the judgment of the permit writer. The sample types for metals at SMS2 are grab samples due to the difficulty in obtaining clean samples at this monitoring location.

Internal Outfalls 101, 102, and 103

The monitoring frequencies were changed to once per quarter. 40 CFR 430.02(b)(1) only requires a monitoring frequency of once per month during the first five years the limits are applicable to the facility. The permittee has been in compliance with the requirements during the term of the current permit. The monitoring frequencies have been reduced based upon the effluent data submitted by the permittee during the term of the current permit and EPA guidance. The sample types are remaining unchanged from the previous permit.

Parameter	Previous Permit		Final Permit	
	Frequency of Sample	Sample Type	Frequency of Sample	Sample Type
OUTFALL 001				
Flow	Once/day	Totalizing meter	Once/day	Totalizing meter
BOD5	Three/week	24-hr composite	Three/week	24-hr composite
TSS	Three/week	24-hr composite	Three/week	24-hr composite
2,3,7,8-TCDD	Once/quarter	24-hr composite	Once/quarter	24-hr composite
AOX	Once/day	24-hr composite	Three/week	24-hr composite
Total Recoverable Copper	N/A	N/A	Once/month	24-hr composite*
Total Recoverable Zinc	N/A	N/A	Once/month	24-hr composite*

Parameter	Previous Permit		Final Permit	
	Frequency of Sample	Sample Type	Frequency of Sample	Sample Type
Dieldrin	N/A	N/A	Once/month	24-hr composite*
Total Phosphorous	N/A	N/A	Once/month	24-hr composite
Nitrates as Nitrogen	N/A	N/A	Once/month	24-hr composite
pH	Three/week	Grab	Three/week	Grab
Chronic WET	Once/quarter	24-hr composite	Once/2 months	24-hr composite
SMS 002				
Flow	Once/day	Totalizing meter	Once/day	Totalizing meter
BOD5				
October – July	Three/week	24-hr composite	Three/week	24-hr composite
August	Three/week	24-hr composite	Three/week	24-hr composite
September	Three/week	24-hr composite	Three/week	24-hr composite
Total Suspended Solids (TSS)	Three/week	24-hr composite	Three/week	24-hr composite
Total Recoverable Copper	N/A	N/A	Once/month	Grab
Total Recoverable Zinc	N/A	N/A	Once/month	Grab
Dieldrin	N/A	N/A	Once/month	Grab
Total Phosphorous	N/A	N/A	Once/month	24-hr composite
Nitrates as Nitrogen	N/A	N/A	Once/month	24-hr composite
Change in Color of Receiving Stream	N/A	N/A	Once/quarter	Grab
pH	Three/week	Grab	Three/week	Grab
INTERNAL OUTFALLS (101, 102, and 103)				
Flow	Daily	Instantaneous	Daily	Instantaneous
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	Once/month	24-hr composite	Once/quarter	24-hr composite
2,3,7,8-Tetrachlorodebenzofuran (TCDF)	Once/month	24-hr composite	Once/quarter	24-hr composite
Trichlorosyringol	Once/month	24-hr composite	Once/quarter	24-hr composite
3,4,5-Trichlorocatechol	Once/month	24-hr composite	Once/quarter	24-hr composite

Parameter	Previous Permit		Final Permit	
	Frequency of Sample	Sample Type	Frequency of Sample	Sample Type
3,4,6-Trichlorocatechol	Once/month	24-hr composite	Once/quarter	24-hr composite
3,4,5-Trichloroguaiacol	Once/month	24-hr composite	Once/quarter	24-hr composite
3,4,6-Trichloroguaiacol	Once/month	24-hr composite	Once/quarter	24-hr composite
4,5,6-Trichloroguaiacol	Once/month	24-hr composite	Once/quarter	24-hr composite
2,4,5-Trichlorophenol	Once/month	24-hr composite	Once/quarter	24-hr composite
2,4,6-Trichlorophenol	Once/month	24-hr composite	Once/quarter	24-hr composite
Tetrachlorocatechol	Once/month	24-hr composite	Once/quarter	24-hr composite
Tetrachloroguaiacol	Once/month	24-hr composite	Once/quarter	24-hr composite
2,3,4,6-Tetrachlorophenol	Once/month	24-hr composite	Once/quarter	24-hr composite
Pentachlorophenol	Once/month	24-hr composite	Once/quarter	24-hr composite
Chloroform	Once/week	24-hr composite	Once/2 months	24-hr composite

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

16. PERMIT COMPLIANCE.

Compliance with final effluent limitations is required by the following schedule:

Compliance is required on the effective date of the permit with the exceptions listed below in Item #3.

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.
2. The permittee must conduct the fish tissue analysis required by Condition No. 11 of Part II of the permit during the third year of the permit cycle. The results must be submitted within 30 days of the completion of the sampling and analyses.
3. The permittee shall submit progress reports addressing the progress towards attaining the final effluent limits for Total Recoverable Copper, Total Recoverable Zinc, and Dieldrin according to the following schedule:

ACTIVITY

DUE DATE

Progress Report	One (1) year from effective date
Progress Report	Two (2) years from effective date
Achieve Final Limits	Three (3) years from effective date

Compliance with final limits for Total Recoverable Copper, Total Recoverable Zinc, and Dieldrin is required three (3) years from the effective date of the permit.

The permittee has the option to undertake any study deemed necessary to meet the final limitations during the interim period. Any additional treatment must be approved and construction approval granted prior to final installation.

If Dieldrin is not detected at SMS 002 during the interim period of the permit, the final Dieldrin limits will be removed from the permit through a modification. The permittee must request the removal at least 6 months prior to the effective date of the final limits.

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. Application No. AR0001210 received 03/02/2009.
- b. Arkansas Water Quality Management Plan (WQMP).
- c. APCEC Regulation No. 2.
- d. APCEC Regulation No. 3.
- e. APCEC Regulation No. 6.
- f. 40 CFR Parts 122, 125, 414, 429, 430, and 454.
- g. Discharge permit file AR0001210.
- h. Discharge Monitoring Reports (DMRs).
- i. "Arkansas Water Quality Inventory Report 2008 (305B)", ADEQ.
- j. "Identification and Classification of Perennial Streams of Arkansas", Arkansas Geological Commission.
- k. Continuing Planning Process (CPP).
- l. Technical Support Document For Water Quality-based Toxic Control.
- m. Region 6 Implementation Guidance for Arkansas Water Quality Standards promulgated at 40 CFR Part 131.36.
- n. Inspection Report dated 05/28/2008.
- o. Site Visit on 05/26/2009.

- p. E-mail from Jeremy “Todd” Franklin of LDEQ to Loretta Reiber dated June 16, 2009.
- q. EPA’s Consumer Fact Sheet on Nitrates/Nitrites.
- r. E-mail from Rachel Johnson to Loretta Reiber, P.E. dated June 5, 2009.
- s. E-mail from Rachel Johnson to Loretta Reiber, P.E. dated June 10, 2009.
- t. LAC Title 33, Part IX, Subpart 1 (LA WQS).
- u. Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, Water Quality Management Plan Volume 3, Version 6 – April 16, 2008.
- v. E-mail from Rachel Johnson to Loretta Reiber, P.E. dated July 28, 2009.
- w. E-mail from Jim Wise to Loretta Reiber, P.E. dated July 29, 2009.
- x. E-mail from Rachel Johnson to Loretta Reiber, P.E. dated July 29, 2009.
- y. E-mail from Rachel Johnson to Loretta Reiber, P.E. dated October 26, 2009.
- z. Letter of no objection from EPA Region VI dated December 16, 2009.
- aa. Additional dieldrin test results received January 14, 2010.
- bb. Correspondence from Marylee Orr and Wilma Subra of LEAN to Loretta Reiber, P.E. dated 02/26/2010.
- cc. Correspondence from Cheryl Slavant received 03/03/2010.
- dd. Correspondence from Charles Ogden received 03/08/2010.
- ee. Correspondence from David Carnal received 03/08/2010.
- ff. Correspondence from Andy McCarley received 03/08/2010.
- gg. Correspondence from James Burtram received 03/08/2010.
- hh. Correspondence from Wayne Haword received 03/08/2010.
- ii. Correspondence from Mike Pylart received 03/08/2010.
- jj. Correspondence from Chesley Carnal received 03/08/2010.
- kk. Correspondence from Reagan Pylant received 03/08/2010.
- ll. Correspondence from L. C. George received 03/08/2010.
- mm. Correspondence from Nolan B. Coleman received 03/08/2010.
- nn. Correspondence from Dave Woods received 03/08/2010.
- oo. Correspondence from Carl Davis, Jr. received 03/11/2010.
- pp. Correspondence from a concerned citizen with unreadable name and no contact information received 03/11/2010.
- qq. Correspondence from a concerned citizen with P.O. Box 1128 in Ruston, LA 71273-1128 received 03/11/2010.
- rr. Correspondence from Paul Smith received 03/11/2010.
- ss. Correspondence from Jerry S. Drewett received 03/11/2010.
- tt. Correspondence from Dr. Kenneth E. Griswold, PhD. received 03/11/2010.
- uu. Correspondence from Michael Caire received 03/12/2010.
- vv. Correspondence from Bobby Griffin received 03/12/2010.
- ww. Correspondence from Jeff McManus received 03/12/2010.
- xx. Correspondence from Wylie Moone received 03/12/2010.
- yy. Correspondence from Rhonda Blakley received 03/12/2010.
- zz. Correspondence from 318 people submitted by Cheryl Slavant and received on 03/12/2010.

- aaa. Correspondence from 22 people submitted by Cheryl Slavant and received on 03/15/2010.
- bbb. Correspondence from Terry Matthews received 03/15/2010.
- ccc. Resolution 10-049 from the Caldwell Parish Police Jury received 03/16/2010.
- ddd. Correspondence from the Ouachita Parish Police Jury received 03/16/2010.
- eee. Correspondence from 267 people submitted by Cheryl Slavant and received 03/17/2010.
- fff. Correspondence from Karen Dickinson of the permittee received on 03/17/2010.
- ggg. Correspondence from Elizabeth Livingston de Calderon of the Tulane Environmental Law Clinic received at the public hearing on 05/10/2010.
- hhh. Correspondence from Cheryl Slavant received at the public hearing on 05/10/2010.
- iii. Oral comments at the public hearing on 05/10/2010 were received from the following people:
 - a. Cheryl Slavant
 - b. Michael Caire
 - c. Leo Miller
 - d. Jim Cutbirth
 - e. Mike Smith
 - f. Eddie Wayne Burch
 - g. Brad Akers
 - h. Jerry Johnson
 - i. Norman Hill
 - j. Senator Jimmy Jeffress, Arkansas District No. 24
 - k. Neil Sidders
 - l. Lanny Dark
 - m. Anthony Cockrell
 - n. Teresa Walsh

19. 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

**RESPONSE TO COMMENTS
FINAL PERMITTING DECISION**

Response to comments received on the subject draft permit in accordance with regulations promulgated at 40 CFR Part 124.17 are as follows:

Permit No.: AR0001210

Applicant: Georgia-Pacific LLC
Crossett Paper Operations

Prepared by: Loretta Reiber, P.E.

Public Notice Date: The draft permit was publicly noticed on 02/17/2010.

Date Prepared: 08/19/2010

ADEQ has made a decision to renew NPDES Permit No. AR0001210 for the above mentioned facility. The draft permit was sent to public notice on 02/17/2010. Due to requests received prior to the close of the public comment period on 03/19/2010, ADEQ scheduled a public meeting and a public hearing on the draft permit on 05/10/2010, to receive public comment on the permit. Comments were accepted until the end of the public comment period and at the public hearing.

The following comments have been received on the draft permit:

1. Correspondence from Marylee Orr and Wilma Subra of LEAN to Loretta Reiber, P.E. dated 02/26/2010.
2. Correspondence from Cheryl Slavant received 03/03/2010.
3. Correspondence from Charles Ogden received 03/08/2010.
4. Correspondence from David Carnal received 03/08/2010.
5. Correspondence from Andy McCarley received 03/08/2010.
6. Correspondence from James Burtram received 03/08/2010.
7. Correspondence from Wayne Haword received 03/08/2010.
8. Correspondence from Mike Pylart received 03/08/2010.
9. Correspondence from Chesley Carnal received 03/08/2010.
10. Correspondence from Reagan Pylant received 03/08/2010.
11. Correspondence from L. C. George received 03/08/2010.
12. Correspondence from Nolan B. Coleman received 03/08/2010.
13. Correspondence from Dave Woods received 03/08/2010.
14. Correspondence from Carl Davis, Jr. received 03/11/2010.
15. Correspondence from a concerned citizen with unreadable name and no contact information received 03/11/2010.
16. Correspondence from a concerned citizen with P.O. Box 1128 in Ruston, LA 71273-1128 received 03/11/2010.
17. Correspondence from Paul Smith received 03/11/2010.
18. Correspondence from Jerry S. Drewett received 03/11/2010.
19. Correspondence from Dr. Kenneth E. Griswold, PhD. received 03/11/2010.
20. Correspondence from Michael Caire received 03/12/2010.
21. Correspondence from Bobby Griffin received 03/12/2010.
22. Correspondence from Jeff McManus received 03/12/2010.
23. Correspondence from Wylie Moone received 03/12/2010.

24. Correspondence from Rhonda Blakley received 03/12/2010.
25. Correspondence from 318 people submitted by Cheryl Slavant and received on 03/12/2010.
26. Correspondence from 22 people submitted by Cheryl Slavant and received on 03/15/2010.
27. Correspondence from Terry Matthews received 03/15/2010.
28. Resolution 10-049 from the Caldwell Parish Police Jury received 03/16/2010.
29. Correspondence from the Ouachita Parish Police Jury received 03/16/2010.
30. Correspondence from 267 people submitted by Cheryl Slavant and received 03/17/2010.
31. Correspondence from Karen Dickinson of the permittee received on 03/17/2010.
32. Correspondence from Elizabeth Livingston de Calderon of the Tulane Environmental Law Clinic received at the public hearing on 05/10/2010.
33. Correspondence from Cheryl Slavant received at the public hearing on 05/10/2010.
34. Oral comments at the public hearing on 05/10/2010 were received from the following people:
 - a. Cheryl Slavant
 - b. Michael Caire
 - c. Leo Miller
 - d. Jim Cutbirth
 - e. Mike Smith
 - f. Eddie Wayne Burch
 - g. Brad Akers
 - h. Jerry Johnson
 - i. Norman Hill
 - j. Senator Jimmy Jeffress, Arkansas District No. 24
 - k. Neil Sidders
 - l. Lanny Dark
 - m. Anthony Cockrell
 - n. Teresa Walsh

NOTE: The "Use Attainability Analysis and Water Quality Assessment of Coffee Creek, Mossy Lake, and the Ouachita River" prepared for USEPA Region VI and dated December 2007 is referred to as the "2007 UAA" throughout this Response to Comments.

ISSUE #1

No discharge limits for dioxin are present at Outfall 001. The facility is only required to monitor and report the levels of dioxin discharged through Outfall 001. This is not appropriate. The numerical discharge limitations at the internal outfalls should not be used as a reason for not establishing numerical limits at Outfall 001.

Chemicals, particularly dioxins, should not be discharged to the river unless there is full and complete compliance with all state (AR and LA) and federal statutes and regulations.

RESPONSE #1

40 CFR 122.44 requires that the permit contain water quality and/or technology based limits. 40 CFR 430.24(a)(1) sets a numerical dioxin effluent limitation on the discharges from each fiber line. Numerical dioxin limits are present at the internal outfalls since they cover the effluent from the bleach plant lines.

Any dioxins present at Outfall 001 would have already been measured at the internal outfalls since dioxins are a by-product of the bleaching process. The monitoring and reporting requirements have been included in the permit in order to track the concentration of any dioxins in the combined effluent discharged through Outfall 001. Dioxins were not detected at Outfall 001 during the term of the current permit.

The draft permit has been reviewed extensively by the Department as well as US EPA Region VI and the Louisiana Department of Environmental Quality. All reviewing agencies determined that the permit is in accordance with all state and federal requirements.

ISSUE #2

The draft permit does not adequately protect the environment and public health. For example, the draft permit fails to use appropriate detection levels. The Department adopted inappropriate detection levels for carcinogenic pollutants such as dioxins. The Department allows this misleading reporting parameter, despite an historic problem with dioxin contamination in fish from the receiving waters. Therefore, the Department must revise the draft permit to better protect public health and the environment.

RESPONSE #2

The minimum level (ML) for dioxins has been set at 0.00001 µg/l (10 pg/l) in accordance with 40 CFR 430.01(i). All tests must be conducted using EPA approved test methods. The detection levels listed in the permit for other parameters are based on EPA guidance.

While the Ouachita River does have a fish consumption advisory due to mercury levels detected in fish, it is not under a fish consumption advisory due to dioxins. The permit does require the facility to collect fish tissue samples upstream as well as downstream of the confluence of Coffee Creek and Mossy Lake in order to help determine if they are having any effect on the dioxin levels. The Department will take no further permit action regarding this issue at this time.

Therefore, the permit adequately protects the environment and public health.

ISSUE #3

The draft permit requires the annual submittal of a report of the Best Management Practices (BMP) monitoring results, action level exceedances, and corrective actions taken in response to any exceedances. Exceedances are not violations of the permit. Annual submittal of the report is not sufficient for the Department to identify and track exceedances. The reporting frequency should be quarterly, at a minimum. Also, the Department should define exceedances of the BMPs as permit violations.

RESPONSE #3

The requirement for the BMP report is based on 40 CFR 430.03. 40 CFR 430.03(b)(1) defines action level as "A daily pollutant loading that when exceeded triggers investigative or corrective action. Mills determine action levels by a statistical analysis of six months of daily measurements collected at the mill. For example, the lower action level may be the 75th percentile of the running seven-day averages (that value exceeded by 25 percent of the running seven-day averages) and the upper action level may be the 90th percentile of the running seven-day averages (that value exceeded by 10 percent of the running seven-day averages)."

The exceedance of an action level does not constitute a permit exceedance because it is below the numerical permit limit. A BMP cannot be exceeded since it combines methods of operation, installation of physical structures such as secondary containment areas around tanks, maintenance, etc.

Annual submittal of the report is sufficient for tracking action level exceedances and any action taken as a result because the action levels are not permit limits. The Discharge Monitoring Reports (DMRs) which are submitted on a monthly basis detail the monthly average levels of the various parameters in the effluent as well as the maximum level detected during the month. The permittee is required to submit non-compliance reports (NCR) for any exceedance of a permit limit. The NCR must outline why the exceedance occurred and what will be done to prevent it from recurring. The Department has the right to require the permittee to submit information similar to what is contained in the report if the tested level is close to the permit limit.

ISSUE #4

The sludge from the WWTP is placed in the facility's north landfill or combined with ash, sand, and grit for use as fill material for the sludge pond closure. This presents an area of concern. The dioxin and the furan in the sludge could migrate into the environment from the closed sludge pond.

RESPONSE #4

Leachate from the landfill is required to be routed to the headworks of the wastewater treatment plant for treatment and discharge through Outfall 001.

The permittee is closing out the sludge pond in accordance with plans submitted to the Department in 1995. The permittee has tested the sludge for dioxins. None of the tests have detected dioxins in the sludge. No supporting documentation regarding this issue was submitted by the commenter.

ISSUE #5

SMS 002 has lower BOD5 and TSS limits than Outfall 001. However, the mass limits for dieldrin, copper, mercury, and zinc are the same at Outfall 001 as they are at SMS 002. The BOD5 and the TSS limits should also be the same at both locations.

The draft permit allows an amount of BOD5 that would critically suppress the limited dissolved oxygen in the streams and lakes receiving the effluent. Typical treated municipal sewage has to meet a monthly average of 30 mg/l, approximately half the level of the limit in this permit.

RESPONSE #5

40 CFR 122.44 requires that the permit contain water quality and/or technology based limits. These limits are calculated based upon all applicable State and Federal regulations. The most stringent limit calculated for a parameter is placed in the permit. Technology based limits for BOD5 and TSS, calculated using the Effluent Limitation Guidelines contained in 40 CFR Part 430, Subpart B, were placed in the permit at Outfall 001. Water quality based limits for BOD5 and TSS were placed in the permit at SMS 002 in order to ensure that the effluent from this facility is not negatively impacting the Ouachita River. Technology based limits for BOD5 and TSS were not included at SMS 002 since the water quality standards are more stringent.

Limits for Total Recoverable Copper, Total Recoverable Zinc, and Dieldrin were calculated for SMS 002 based on the water quality criteria contained in APCEC's and LDEQ's regulations. The inclusion of those limits at Outfall 001 will help to ensure that the downstream water quality standards are protected in the event that monitoring cannot be done at SMS 002. Part IA of the permit will be revised to state that monitoring Total Recoverable Copper, Total Recoverable Zinc, and Dieldrin is only required at Outfall 001 in the event that Mossy Lake is flooded.

It is not appropriate to compare the permitted BOD5 concentration at Outfall 001 for this facility to the concentration level for most municipal permits. The referenced BOD5 levels for municipalities is based on the technology standard contained in 40 CFR 133 – Secondary Treatment Regulation and is listed as a concentration limit. The technology based standard for this permit is based on 40 CFR Part 430, Subpart B – The Pulp, Paper, and Paperboard Point Source Category, Bleached Paper Grade Kraft and Soda Subcategory which lists the limits in pounds of BOD5 per unit of production. The BOD5 limit at SMS 002, as developed in the TMDL/WLA approved by EPA on January 11, 2002, is based on maintaining the DO standard of the Ouachita River.

ISSUE #6

The increase in mass limits for Adsorbable Organic Halogens (AOX) violates the anti-backsliding standards and Anti-degradation requirements. The Fact Sheet does not show how the permit meets any Antidegradation exceptions.

The Clean Water Act prohibits permit renewals that contain less stringent effluent limitations as compared to those in the previous permit. Although the Department states in one section that the increase in AOX is based on an increase in unbleached pulp production, it does not show how the increase conforms to any exception of the anti-backsliding standards of 40 CFR 122.44(1)(2)(i). Also, the permit allows the permittee to discharge increase levels of dieldrin compared to the previous permit.

RESPONSE #6

AOX limits are contained in the permit at Outfall 001 because of the technology based standards contained in 40 CFR 430.24. Numerical water quality standards do not exist for this parameter.

Although the increase proposed in the draft permit is allowed under the applicable regulations, the permittee has agreed to maintain the AOX limits from the previous permit. The DMR data submitted during the term of the current permit has shown that the permittee is capable of meeting those limits at the current production levels.

The increase in AOX proposed in the draft permit is allowed under 40 CFR 122.44(l)(2)(i)(B)(1). Anti-degradation requirements in APCEC Reg. 2 require that the permit protect the existing uses of the receiving stream. One instance in which the anti-degradation standards must be applied is when a receiving stream is on the 303(d) list. In accordance with APCEC Reg. 2, Coffee Creek and Mossy Lake do not have any existing uses. The existing uses of the Ouachita River are not on the 303(d) list due to levels of AOX in those waterbodies.

Dieldrin has been added to the permit during this renewal because the permittee demonstrated reasonable potential for water quality violations at SMS002 during review of the permit application as required by 40 CFR 122.44(d). Addition of a parameter does not violate the anti-backsliding standards because it is normally based upon new information. The permittee will be required to monitor for Dieldrin at Outfall 001 in the event that Mossy Lake is flooded. The addition of the limit will ensure that the uses of the Ouachita River are protected and that it will not become impaired due to the levels of Dieldrin in this facility's effluent.

ISSUE #7

The draft permit violates federal regulations. The Department cannot approve discharge into an impaired water without showing that the discharge will not cause or contribute to the impairment of the Ouachita River in Louisiana. The Department must not approve the draft permit until it fully examines the impacts of the discharges on the Ouachita River. When a water body is impaired, federal law prohibits the issuance of a permit which has the reasonable potential to cause or contribute to an excursion above any state water quality standard.

RESPONSE #7

The 2008 303(d) list states that the reach of the Ouachita River immediately below its confluence with Coffee Creek is impaired due to Total Recoverable Copper, Total Recoverable Zinc, and Total Recoverable Mercury. Requirements for each of these parameters have been included in the permit.

The permittee has not demonstrated reasonable potential to cause or contribute to an impairment of the Ouachita River in Arkansas or Louisiana due to the levels of Total Recoverable Copper in the effluent. However, the permittee did demonstrate reasonable potential for exceedances of Arkansas' water quality standards for Total Recoverable Zinc but not for exceedances of Louisiana's water quality standards. The permit limits for both parameters were calculated based upon procedures contained in ADEQ's CPP. These limits will ensure that the facility will not cause or contribute to an impairment of the river.

The Department is unaware of any documents which demonstrate that the permittee is causing or contributing to an impairment of the Ouachita River due to the levels of Total Recoverable Copper, Total Recoverable Zinc, and Total Recoverable Mercury in their effluent.

ISSUE #8

The Department used background concentrations of 0 mg/l for Total Recoverable Copper and Total Recoverable Zinc even though background data exists for these parameters.

RESPONSE #8

The Department has recalculated the numerical limits for Total Recoverable Copper and Total Recoverable Zinc based on the background data available from monitoring station OUA0008B instead of assuming background concentrations of 0 µg/l. The limits were recalculated using the procedures outlined in the CPP. The revised limits are as follows:

Parameter	Mass Limits, lb/day		Concentration, µg/l	
	Monthly Avg.	Daily Max.	Monthly Avg.	Daily Max.
Total Recoverable Copper	7.04	14.12	18.75	37.62
Total Recoverable Zinc	73.02	146.52	194.58	390.41

ISSUE #9

The proposed permit includes numerical limits for mercury for Outfall 001 and SMS 002. The mercury impairment in the Ouachita River is primarily from air deposition and other non-point sources¹ based on the TMDL: less than 1 percent of the mercury load is attributable to point sources. Since the point load component of the TMDL is small compared to the load from air deposition and non-point sources, we request a permit condition requiring a mercury minimization plan in lieu of the numerical limits listed in Part IA for Outfall 001. This type of approach is supported by EPA:²

“For mercury TMDLs where point sources are very small compared to loadings from air deposition, states continue to have the option of implementing the WLA in permits through mercury minimization plans where appropriate.”

We have attached an example draft condition from the Louisiana DEQ *Mercury Minimization Program Plan Guidance* (Attachment C) for your consideration. For the reasons set forth in the comments to Page 3 of Part IA below, mercury monitoring at SMS 002 should also be omitted.

¹ *TMDLs for Segments Listed for Mercury in Fish Tissue for the Ouachita River Basin, and Bayou Bartholomew, Arkansas and Louisiana*, US EPA VI, May 2002.

² *TMDLs Where Mercury Loadings Are Predominantly From Air Deposition*, EPA, September 2008.

RESPONSE #9

As stated in the Total Maximum Daily Load (TMDL) assessment for mercury in the Ouachita River, less than 1% of the mercury in the river is contributed by point source loads. The permittee has not demonstrated reasonable potential to cause or contribute to an impairment of the Ouachita River due to the levels of Total Recoverable Mercury in the effluent. A mercury minimization plan has been included in the permit in lieu of numerical limits. The mercury minimization plan will require the permittee to monitor the levels of mercury at various points throughout the treatment system and to take various measures to reduce the amount of mercury in the wastewater. This plan is based upon LDEQ's requirements for a mercury minimization plan. It has been deemed appropriate for this facility since the mercury TMDL for the Ouachita River has stated that 99% of the mercury present in the river is caused by atmospheric deposition. Implementation of the Mercury Minimization Plan will prevent the facility from causing or contributing to an impairment of the river.

The following conditions which outline the requirements of the Mercury Minimization Plan will be added to Part II of the permit.

- 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 beginning one year after submittal and approval of the program. The annual report should include a summary of all 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.
- The permittee shall develop specific plans to identify and eliminate potential sources of mercury in the effluent. Methods which may be used are:

Data Gathering:

- Gathering data from industrial users of the City of Crossett's wastewater treatment lagoons.
 - This includes reviewing EPA standards in 40 CFR Parts 405 – 471 to determine if mercury is a pollutant of concern for a particular industry.
- Education for residential users of the City of Crossett's wastewater treatment lagoons.
- Review of all chemicals, processes, and materials which are either stored or handled at this facility to determine if there is the potential for them to contain 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/>. Steps should then be taken to reduce inflow and infiltration into the collection system.
- Review collection system practices.

Mercury monitoring at various points within the facility/treatment system:

- Monitoring of the treatment plant influent as well as the wastewater received from the City of Crossett.
- Monitoring throughout the treatment system as a result of elevated influent concentrations should be conducted backwards from the point at which it was measured.
- Direct monitoring of industrial users of the City of Crossett's wastewater treatment lagoons.

- Effluent monitoring 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. Sampling of the treatment system influent and throughout the treatment system should be performed to establish baselines and goals for reduction.

Control Measures

- Activities selected by the treatment system for control measures should be based on the potential of those activities to reduce mercury loadings into the system and ultimately its effluent.
 - A control can be anything that reduces the amount of mercury contributed to the system.
 - Source significance should be considered. An effort to quantify load potential from each identified source should be made. This quantification should assist in prioritizing sources for mercury reduction and elimination efforts.
 - Economic considerations should be given regarding the reduction of mercury from an identified source.
 - Treatability considerations may apply to specific sources.
 - 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.

Resources and Staffing

- The permittee must indicate the following regarding resources and staffing:
 - Indicate the source and amount of funding that will be available to carry out the plan.
 - Indicate the number and position of employees that will devote time to planning and implementation.
 - Indicate if other entities will devote time and funding to planning or implementation.

Public Outreach

- To be effective, a mercury minimization plan should include partnerships with the public.
 - Collection programs from community residents.
 - Identification of mercury recycling vendors that otherwise would not be known to the public.
 - Build community support through educational opportunities and community environmental activities.
 - Issue news releases to let the public know about the program.
 - Speak to local service groups and community clubs.
 - Place information on utility bills.
 - Development of fact sheets for distribution where mercury containing products are purchased or used.

ISSUE #10

The permittee objected to the inclusion of numerical limits for Total Recoverable Copper and Total Recoverable Zinc in the permit. These parameters were included because the Ouachita River is on the 2008 303(d) list for those parameters in Category 5d. Category 5d contains those segments for which additional data is necessary to verify the accuracy of the assessment. The permittee requested that the monitoring frequency be reduced to the collection of six grab samples per year. The permittee also requested that these grab samples be taken at Outfall 001 and in the Ouachita River using clean sampling techniques.

The permittee requested a three-year schedule of compliance as allowed under APCEC Reg. 2.104 for all parameters (i.e., Total Recoverable Copper, Total Recoverable Zinc, and Dieldrin) which were added to the permit.

RESPONSE #10

Numerical limits for Total Recoverable Copper, Total Recoverable Zinc, and Dieldrin were added to the permit at Outfall 001 and SMS 002. Numerical limits for Total Recoverable Zinc and Dieldrin were included in the permit because reasonable potential for water quality violations was demonstrated through the limited test data available for SMS 002. Numerical limits for Total Recoverable Copper were included because the Ouachita River is on the 303(d) list for that parameter as well as for Total Recoverable Zinc. Limits are necessary in order to ensure that the permittee's effluent is not causing or contributing to the impairment of the River.

The limits for the new parameters are water-quality based and are not contained in 40 CFR 430, Subpart B. Therefore, a three-year schedule of compliance will be added to the permit for those parameters. The permittee will be required to submit annual progress reports detailing the measures taken to come into compliance with all new limits. Full compliance with the final limits will be required within three years of the effective date of the permit.

The Department will include language in the permit to specify that the samples for Total Recoverable Copper, Total Recoverable Zinc, and Dieldrin at Outfall 001 are only required when Mossy Lake is flooded and the permittee cannot sample at SMS 002. Also, language will be added stating that if Dieldrin is not detected at Outfall 001 and SMS 002 during the interim period of this permit, the final Dieldrin limits may 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.

Total Recoverable Copper and Total Recoverable Zinc will not be removed during this permit cycle since the permittee discharges to a reach of the Ouachita River which is impaired for these parameters.

ISSUE #11

The permittee requested that the following changes be made to the coordinates:

- The location provided (latitude 33° 08' 30"; longitude 91° 58' 12") is for the front door of the Administration building at Crossett Paper Operations. The location for the written description (ending at the T in the road near the primary clarifier) is latitude 33° 07' 34"; longitude 91° 59' 35".
- For the description of the receiving waters for Outfall 001, we suggest the description of "Mossy Lake" be modified to read for accuracy, "The upper reaches of Mossy Lake".
- The correct latitude/longitude for the sampling building and flume at Outfall 001 is: latitude 33° 06' 22.5", longitude 92° 02' 17.2".

The footnotes on the bottom of Page 1 of Part IA should be corrected as follows:

Footnote 1 – the conditions beginning on page 16 of Part II are misnumbered as the numbers skip from Condition 21 on page 7 to Condition 24 on page 16. The conditions should be renumbered and the references modified accordingly.

Footnote 2 – the correct reference should be Condition No. 9

Footnote 3 – the correct reference should be Condition No. 21

Footnote 4 – the correct reference should be Condition No. 9

Footnote 5 – the correct reference should be Condition No. 20

(Note: As set forth in the comments below, we also believe Condition 6 of Part II should be removed as it simply states a definition for process wastewater for the Timber Products subcategory. This is already stated in the Fact Sheet and does not provide for any requirement or action. We have also requested certain conditions to be omitted or modified related to the chloroform certification option. These requested changes may require the references in the above footnotes to be renumbered accordingly.)

The second footnote on page 3 of Part IA should reference condition no. 20.

The permittee requested that the following items be corrected or changed:

- The condition numbers in Section IB and Part II need to be corrected.
- In the Fact Sheet, the data and DMR referenced in the DMR Review paragraph for December 2006 was a typographical issue. This data has been clarified and resubmitted to the ADEQ.
- In the first paragraph of Use Attainability Analysis, in the Fact Sheet, add a final sentence, “This UAA was approved by EPA Region VI in a letter dated April 26, 1988.”
- In the second paragraph of Use Attainability Analysis in the Fact Sheet, revise the first sentence to accurately state, “EPA Region VI developed and proposed a UAA in 2007, though this UAA has not been through a public notice and comment period.”
- The last sentence in paragraph 7 of the Fact Sheet incorrectly refers to the Ouachita River as the receiving stream. This sentence should be modified to read, “The Ouachita River 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.”
- The “Design Flow” is listed in the Fact Sheet as 45 MGD. This is the average flow that the facility typically experiences. The facility is capable of adequately treating much higher rates of flow based on the stormwater surges that may occur. “Design Flow” should be changed to “Average Design Flow”.

RESPONSE #11

The changes will be made as requested.

ISSUE #12

The permittee requested that the BOD5 and the TSS concentration and mass limits be rounded to the nearest whole integer.

RESPONSE #12

The Department cannot round the BOD5 and the TSS concentration and mass limits to the nearest whole integer. If limits are rounded up, the water quality standards and the technology standards could be exceeded without the permit limits being exceeded. 40 CFR 122.4(a) forbids the issuance of a permit when the conditions of the permit do not provide for compliance with the applicable requirements of CWA or regulations promulgated under CWA.

ISSUE #13

The permittee requested the monitoring frequency for AOX be reduced to three times per week based upon effluent data submitted during the term of the current permit and as allowed by EPA guidance.

The permittee requests a reduction in monitoring for all the chlorophenolics, TCDD and TCDF for internal outfalls 101, 102 and 103. There have been no detects for the last two years for any of these substances. Since this has been in our permit for one permit cycle, EPA in 40 CFR 430.02(b) allows for a reduction in monitoring frequency. The permittee requests the reduction in monitoring frequency from monthly to semi-annually.

RESPONSE #13

The Department has reviewed the effluent levels for AOX, chlorophenolics, TCDD, and TCDF. The monitoring frequencies have been reduced as allowed by EPA Guidance.

ISSUE #14

The permittee previously had requested the exemption from chloroform monitoring as allowed in 40 CFR 430.02(f)(4). The permittee is requesting the withdrawal of the chloroform certification option, and have included production data corresponding to internal outfalls 101, 102 and 103 for the calculation of chloroform limits per 40 CFR 430.24. Permit limits for chloroform for internal outfalls 101, 102 and 103 should be included in the tables listed on pages 4, 5 and 6 of Part IA. This would also necessitate the removal of Conditions 16-21 on Pages 5 and 6 of Part II of the proposed permit.

The permittee also requests that the required monitoring for chloroform be reduced from weekly to once every two months, since the chloroform long term averages have been below 25 percent of the permit limits for all internal outfalls 101, 102 and 103. A copy of this data for the last two years is included.

RESPONSE #14

The chloroform certification option is hereby considered withdrawn. The appropriate chloroform limits will be placed in the permit for each of the internal outfalls.

The Department has reviewed the chloroform levels and reduced the required monitoring frequency as allowed under EPA Guidance. The new monitoring frequency will be once every two months.

ISSUE #15

Condition 6 is a definition of 40 CFR 429.11(c) that is described in the Fact Sheet. It contains no pertinent action items to the permit, and should be omitted. Note that the deletion of this item will renumber all subsequent conditions and change previous references to following conditions.

RESPONSE #15

The definition of process wastewaters will be removed from Part II of the permit. The permittee is allowed to discharge process wastewaters from the plywood plant and stud mill if they are combined with other wastewaters and treated prior to discharge.

ISSUE #16

Condition 10 requires the submittal of a report within 30 days after permit issuance indicating compliance with all items having deadlines in accordance with 40 CFR 430.03(j). This letter certifies that the facility has performed all actions as required by 40 CFR 430.03(j) in the time frames specified. The permittee requests removal of this requirement from Condition 10.

RESPONSE #16

The referenced statement will be replaced with the following: "The permittee has certified that all actions required by 40 CFR 430.03(j) have been performed."

ISSUE #17

Despite the description in Condition 24, GP has no plans to sell or divest any parts of the complex. We request the simple clarification that only the first two sentences remain in this condition, as any other discussions are subject to business negotiations should such an unlikely scenario ever occur. Likewise, Condition 25 should be deleted in its entirety.

RESPONSE #17

The first two sentences of Condition No. 24 of Part II of the draft permit (Condition No. 16 of the final permit) will remain unchanged. The Department will replace the remainder of the condition with the following: "The CP&P mill will be responsible for treating the wastewaters generated by the Plywood Plant, Stud Mill, and/or the Chemical Plant in the event the CP&P is split from one or more of the other facilities in the complex. This responsibility will be required until other arrangements for the wastewater have been made and this permit has been modified." Condition no. 25 will be removed since it is rendered obsolete by the changes made to condition no. 24.

ISSUE #18

The Fact Sheet does not address "Product Stewardship Wastewaters" as an allowed component of discharges from Outfall 001 as noted in Section II.B of Form 2C for Outfall 001, and as described in the Georgia-Pacific LLC Crossett Complex description included with the permit application as follows:

"Product Stewardship wastewaters, better defined as wash water or contaminated rainwater associated with other GP chemical or building product facilities are routinely shipped to the GP's Crossett

complex for treatment in its WWTP. All waters received are “characteristically like” the wastewater already being generated and treated at the GP complex.”

Product Stewardship wastewaters are clearly excluded by EPA from the Centralized Wastewater Treatment CWT subcategory (40 CFR 437) as described in the preamble to the final regulation:

“In the supplemental proposal, EPA proposed subjecting centralized waste treatment operations at manufacturing facilities to the provisions of the rule unless one of the following conditions was met:

- In the case of manufacturing facilities subject to national effluent limitations guidelines for existing sources, standards of performance for new sources, or pretreatment standards for new and existing sources (national effluent guidelines and standards), if the process or operation generating the wastes received from off-site for treatment is subject to the same national effluent guidelines and standards as the process or operation generating the onsite wastes; or
- In the case of manufacturing facilities not subject to existing national effluent guidelines and standards, if the process or operation generating the waste received from off-site is from the same industry (other than the waste treatment industry) and of a similar nature to the waste generated on-site.

After careful consideration of comments and further review of its database, EPA continues to regard this approach as appropriate...”³

EPA goes on to say about wastewaters of similar nature:

“Furthermore, EPA determined there are other instances of off-site waste acceptance at manufacturing facilities in which the off-site wastes, while not from the same industrial category, are similar to the on-site generated manufacturing wastewaters and compatible with the manufacturing wastewater treatment system. Consequently, for purposes of this rule, EPA has decided that, where the discharger establishes that the wastes being treated are of similar nature and compatible with treatment of the on-site wastes, the CWT limitations and standards will not apply to the resulting discharge.”⁴

The permittee therefore requests that the Fact Sheet acknowledge that the handling of such wastewaters from other GP Chemical and Wood Products facilities which are similar in nature to those already treated are not subject to the CWT and are allowed for treatment under this permit by the Crossett wastewater treatment system, subject to the approval of the ADEQ.

RESPONSE #18

The Department is in agreement that these wastewaters are not subject to the requirements of 40 CFR Part 437. In order to ensure that the wastewaters meet the exceptions outlined in the preamble, a requirement will be added stating that the permittee must obtain permission prior to transferring the wastewaters to their Crossett facility. This request will need to 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.

³ Federal Register, 65 FR 247, pages 81255-81256

⁴ Federal Register, 65 FR 247, pages 81256

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.

ISSUE #19

Several commenters stated that the draft permit fails to protect the existing fisheries uses in Coffee Creek and Mossy Lake. Federal and state regulations require permits to protect existing uses in the receiving waters. The draft permit unlawfully relies on an incomplete 1984 Use Attainability Analysis (UAA) and therefore an incomplete application as the basis for allowing discharges under the draft permit and fails to consider a 2007 UAA completed by the EPA which contradicts the 1984 UAA.

Mr. Michael Caire requested that the permit be updated when the 2007 UAA is incorporated into APCEC Reg. 2.

RESPONSE #19

As stated in the Fact Sheet, the draft permit was based on APCEC Reg. 2 classifications of Coffee Creek and Mossy Lake, not on the 1984 UAA. (See Item No. 18 of the Fact Sheet.) The 1984 UAA was not reviewed during the permitting process. It is not a regulation nor a guidance document on how to carry out the requirements of a specific regulation.

Any portion of the 1984 UAA in the Department's records may be obtained through a Freedom of Information Act request. The public comment period for this UAA was in the mid-1980's when the 3rd party rule making decision was sent to public notice. The 1984 UAA is not open for comments at any other time.

The Department may reopen any permit based on changes to Reg. 2.

ISSUE #20

Ms. Cheryl Slavant stated that on April 27, 2010, Mr. James W. Cutbirth acknowledged that people were fishing in Mossy Lake and catching large fish at a meeting with the Morehouse Parish Police Jury and the Ouachita River Keeper. This verifies that EPA was correct and that Coffee Creek should be re-designated.

RESPONSE #20

The statement attributed to Mr. Cutbirth by Ms. Slavant is outside the scope of the NPDES permit. In accordance with 40 CFR 124.17(a)(2), the Department must only respond to comments which are within the scope of the NPDES permit.

ISSUE #21

During the public hearing, Ms. Slavant presented some pictures. She stated that these pictures were of black liquor entering Coffee Creek at up to 85 million gallons a day. Ms. Slavant showed picture that she said were of Arkansas with lighter color water, Georgia Pacific's effluent into Coffee Creek, and the river

in Louisiana with darker water. She stated that the Ouachita River is a scenic river up above Monroe and should have special protection. ADEQ should correct all of this.

RESPONSE #21

The Department also cannot comment on the pictures submitted by Ms. Slavant. There is no evidence of where the pictures were taken so it cannot be verified that these are pictures of the Ouachita River.

ISSUE #22

According to the Fact Sheet, only one exceedance was reported on the DMRs from December 2003 through December 2008 and that was attributed to a typographical error. According to people who live on the river and use it for recreational purposes, the water quality is being severely negatively impacted by the discharge from this facility. The Department must evaluate the impacts of the permittee's effluent on the waters downstream from the facility and determine the extent of the negative impacts as a result of this discharge. The resulting negative impacts must be addressed as a part of the effluent limitations established in the draft permit.

RESPONSE #22

The permit limits at SMS 002 are based on maintaining the water quality of the Ouachita River. The commenter did not submit any studies demonstrating that the Ouachita River is impaired due to the discharge from this facility. EPA and LDEQ reviewed the draft permit. Neither agency submitted comments stating that water quality standards would not be met if the draft permit limits remained unchanged.

Therefore, no change to the permit is necessary as a result of this comment.

ISSUE #23

Several comments about the following items concerning the facility's discharge were received:

1. Odor;
2. Color;
3. Fish taste bad;
4. The river needs to be cleaned up;
5. Don't want to use the river for recreational purposes due to perceived water quality issues;
6. Water is polluted due to this discharge and ADEQ could stop it;
7. The Arkansas portion of the river is cleaner than the Louisiana portion;
8. The facility should be made to comply with all applicable regulations;
9. The facility should not be allowed to discharge wastewater into the Ouachita River;
10. The pollution from this facility is causing economic harm to the area; and
11. The draft permit fails to adequately protect the environment and public health.

Two commenters stated that they worked in the Ouachita River. One commenter expressed concern about the mercury in the water.

RESPONSE #23

Issues such as odor and the taste of the fish caught in the Ouachita River are not things which can be addressed by ADEQ in the permit due to their highly subjective nature.

LDEQ has completed a TMDL for color in the Ouachita River. The TMDL found that the cause of the color impairment is natural causes, i.e., not industrial point sources. The permittee has agreed to monitor the color of the Ouachita River upstream and downstream of its confluence with Coffee Creek in order to demonstrate that the effluent is not causing a change in color of the river.

The Department recognizes that the Ouachita River has been designated as impaired due to Total Recoverable Copper, Total Recoverable Mercury, and Total Recoverable Zinc. As required by the Clean Water Act, the Department is taking steps to address the impairments caused by Total Recoverable Mercury, Total Recoverable Zinc, and Total Recoverable Copper. This is being accomplished through inclusion of permit limits for Total Recoverable Copper and Total Recoverable Zinc and a Mercury Minimization Plan.

40 CFR 122.44 requires that the permit contain water quality and/or technology based limits. These limits are calculated based upon all applicable State and Federal regulations. The most stringent limit calculated for a parameter is placed in the permit. The permit complies with all applicable regulations, including the water quality standards for Arkansas and Louisiana and the technology based standards set forth in 40 CFR 430, Subpart B.

As required in 40 CFR 122.44, the permit does not relieve the facility of the obligation to comply with an applicable regulation. It is important to note that the Department applies the same standards to all facilities discharging in the Gulf Coastal Plains Ecoregion. No evidence was submitted demonstrating that this permit would harm or destroy the Ouachita River, that this facility is causing economic harm to the area, or that the Arkansas portion of the Ouachita River in the vicinity upstream of the discharge is cleaner than the Louisiana portion of the Ouachita River.

The only advisory is a fish consumption advisory due to mercury. The TMDL for mercury in the Ouachita River states that 99% of the mercury is caused by air deposition, not point source discharges. There have been no advisories against other types of recreational activities in the Ouachita River. The commenter who expressed concern about mercury in the water did not make any specific statements regarding this issue.

The Department cannot forbid a facility from discharging to a certain stream. The Department reviews several different aspects of the receiving stream and determines the appropriate water quality based limits for that receiving stream. The Department will then issue a permit to the facility if they are capable of meeting the applicable water quality standards. None of APCEC's or LDEQ's regulations forbid the permitting of an existing facility which is already discharging to the Ouachita River.

Georgia-Pacific extensively treats the wastewater prior to discharge. As a result, all technology and water quality based limits in the permit have been met during the term of the current permit. Therefore, there is no basis for requiring additional treatment to be installed at this facility.

ISSUE #24

Several commenters asked why they are permitted to discharge toxic waste which ends up in the Ouachita River/Louisiana. The river is cleaner upstream of the discharge than it is downstream.

RESPONSE #24

The permittee is allowed to discharge treated wastewater under the terms and conditions of its NPDES permit which is based on all applicable state (AR and LA) and federal regulations.

APCEC Reg. 2.409 forbids permittees from discharging pollutants in amounts which are toxic. The permit contains terms and conditions which ensure that the receiving stream is meeting Arkansas and Louisiana water quality standards. The commenters offered no data or information to demonstrate that the water quality of the Ouachita River is different downstream of the discharge than it is upstream. Therefore, no change to the permit is necessary as a result of this comment.

ISSUE #25

One commenter stated that nothing should go in the Ouachita River that we cannot drink. Waste should not be allowed to go into the Ouachita River because the City of Monroe's drinking water comes from this river and it does not need anymore waste in it.

Another commenter from Louisiana stated that the Ouachita River might be used for drinking water one day since there is a shortage of water.

RESPONSE #25

The City of Monroe's drinking water comes mainly from Bayou DeSiard and Bayou Bartholomew. Black Bayou and the Ouachita River are used as drinking water sources only if necessary. It is important to note that the City of Monroe does not pull water from one of these sources and send it directly to customers. The water is treated through addition of various chemicals, aeration, and filtration. (Specific information regarding water sources and treatment for the City of Monroe's drinking water may be found on their web site www.ci.monroe.la.us.)

The permit is protective of the designated uses of the receiving stream in Louisiana and Arkansas. This includes use of the Ouachita River as a drinking water source. 40 CFR 122.44 requires that the permit contain water quality and/or technology based limits. These limits are calculated based upon all applicable State and Federal regulations. The most stringent limit calculated for a parameter is placed in the permit. It is important to note that LDEQ did not have any objections to the limits contained in this permit.

ISSUE #26

Two commenters stated that if you get an injury on the Ouachita River such as a scrape, a rope burn, or a laceration, you will have to treat it immediately or you will have an infection that will require a doctor's attention.

RESPONSE #26

This comment is outside the scope of the NPDES permit. In accordance with 40 CFR 124.17(a)(2), the Department must only respond to comments which are within the scope of the NPDES permit.

ISSUE #27

The facility should not be allowed to build a pipeline for discharging wastewater to the Ouachita River.

RESPONSE #27

The permittee has not requested permission to build a pipeline to the Ouachita River. Therefore, this comment is outside the scope of the NPDES Permit. In accordance with 40 CFR 124.17(a)(2), the Department must only respond to comments which are within the scope of the NPDES Permit.

ISSUE #28

One commenter requested to have all information possible at their disposal in order to make an assessment of these discharges, including chemical, soluble and insoluble minerals content, volume, and frequency of discharge events.

RESPONSE #28

Most permitting information is available on the Department's web site www.adeq.state.ar.us. Any other information may be requested through the Department's Public Outreach and Assistance Division under the Freedom of Information Act.

ISSUE #29

The permit limitations are not lawful because the limitations are based on discharges for paper mills and not the other permitted sources - 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, Arkansas, truck wash, and backwash wastewater.

RESPONSE #29

The mass limitations at Outfall 001 are based on the technology requirements of 40 CFR Part 430. The mass limits were calculated using actual production levels at the paper mill. The effluent from the paper mill comprises approximately 90% of the wastewater discharged under Permit No. AR0001210.

40 CFR 429 – Timber Products Processing Point Source Category gives a “no discharge of process wastewaters” limit to the plywood plant and studmill operations. In paragraph (a)(2) of the response to comments for this point source category, the EPA states that wastewaters from these operations may be

sent to an available treatment system but no credit will be given for the wastewater attributable to the point source categories included in 40 CFR 429 that have a no discharge limitation. This means that the facility may treat and discharge the water but the Department cannot increase the BOD5 and the TSS mass limits to accommodate the amounts contributed by those wastewaters.

The Department has applied this approach to the other types of wastewater allowed to be discharged from this facility. For instance, the permittee discharges approximately one million gallons per day of treated sanitary wastewater. This would translate into an additional 250 pounds per day of BOD5 as well as TSS if the permitted concentration for both parameters was 30 mg/l. By not increasing the BOD5 and the TSS mass limits to accommodate the amounts contributed by the sanitary wastewater, the limits are each 250 pounds per day lower than they would be otherwise. This has resulted in more stringent BOD5 and TSS limits at Outfall 001 than would otherwise be required.

The permit limitations at SMS 002 for BOD5 and TSS are based on a water quality study conducted by the facility and approved by EPA Region VI. The other parameters are based on the water quality standards contained in Arkansas's and Louisiana's water quality regulations.

ISSUE #30

Mr. Jerry Johnson asked if there are a hundred paper mills discharging the same kind of water into the Ouachita River as Georgia-Pacific would it be polluted?

RESPONSE #30

The permit limits are protective of the water quality of the Ouachita River in Arkansas as well as in Louisiana. Water quality based permit limits are based on several factors including the characteristics of the receiving stream as well as other facilities which discharge in the vicinity of the facility in question. The Department is unaware of any documentation demonstrating that this facility is causing the Ouachita River to be impaired.

ISSUE #31

A significant issue which needs to be addressed is the lack of any decreases in the permitted discharge, particularly BOD5.

RESPONSE #31

No changes were made to the water quality standards or to the permittee's process which would require the modeling study conducted in the late 1990's to be updated and the limits at SMS 002 to be changed. The limits based on the modeling study were determined to be in compliance with Arkansas's and Louisiana's water quality standards. The BOD5 limits at Outfall 001 are based upon the Effluent Limitation Guidelines (ELGs) contained in 40 CFR 430, Subpart B. The numerical limits were calculated using the ELGs and the production numbers from the past several years. There are no requirements for decreases in permitted discharges to occur when a permit is renewed. Therefore, no change to the permit is necessary as a result of this comment.

ISSUE #32

The levels of phosphorous and nitrates as nitrogen discharged through Outfall 001 are required to be monitored and reported. The Department must establish numeric limitations for these parameters.

RESPONSE #32

APCEC Reg. 2 and APCEC Reg. 6 do not contain numerical water quality standards for nitrates as nitrogen entering the Ouachita River. APCEC Reg. 2.509 does contain numerical phosphorous limits for streams which have been designated as impaired due to nutrient levels or are located in nutrient surplus watersheds. These limits may be reduced in the event that an Extraordinary Resource Water (ERW) or reservoir is located downstream. Although reaches of the Ouachita River have been classified as an ERW, no reaches have been classified as impaired due to nutrients. Therefore, APCEC Reg. 2.509 does not apply to this facility.

APCEC Reg. 6.402 does contain numerical phosphorous limitations for discharges of treated wastewater into the Ouachita River. However, those limits are only applicable to those dischargers whose outfalls are close to the H.K. Thatcher Lock and Dam. The confluence of the Ouachita River and Coffee Creek is approximately 58 stream miles from the H.K. Thatcher Lock and Dam so APCEC Reg. 6.402 does not apply to this facility.

The Department is unaware of any studies demonstrating that the permittee is causing the Ouachita River to be impaired due to the levels of Total Phosphorous and Nitrates in their effluent.

Technology based limits are not appropriate at this time because the presence of these parameters in the effluent is not caused by any of the manufacturing processes which directly discharge into the wastewater treatment system. Also, information sufficient (levels in the permittee's effluent, levels in effluent at similar facilities, etc.) to develop Total Phosphorous and Nitrates limits based on the Best Professional Judgment (40 CFR 125.3) of Water Division staff is not available at this time. Please see Response #30 for additional information.

ISSUE #33

The proposed permit includes monitoring requirements for Outfall 001 and SMS 002 for nitrate and total phosphorus at the frequency of three times per week. For a "Report" requirement, this is a substantial increase in outside laboratory costs that will provide a total of 750 data points for each parameter for each outfall, or more than 3000 total data points, over the five year term of the permit. This permit requirement is not based on a water quality or effluent guidelines basis, but solely on the judgment of the permit writer. GP's untreated wastewater is nutrient-deficient, and we only add nitrogen and phosphorus ahead of the biological treatment unit to add sufficient nutrients for efficient biological reduction of compounds contributing to BOD. This feed rate is fairly constant (the typical target flow rate is 600 gallons per day). Since GP purchases this nutrient solution, it is in our best business interest to apply it prudently. Additionally, there is no impairment for which GP has been identified as a contributor for nitrogen or phosphorus. In lieu of nitrate and phosphorus monitoring for Outfall 001 and SMS 002, we request a condition requiring the maintenance of a daily log of nutrient solution usage (gallons). This could be sent in periodically with DMRs or be available for inspection by an ADEQ inspector. This provides an equivalent control of how much nitrogen and phosphorus GP applies to provide efficient biological treatment.

RESPONSE #33

The Department is unaware of any existing data which correlates the volume of nutrient solution used to the levels of Total Phosphorous and Nitrates in the effluent.

Excess nutrients in effluent can cause objectionable algal densities or other nuisance aquatic vegetation, or otherwise impair the designated uses of the receiving stream. The Department recognizes that the receiving stream has not been designated as impaired due to its nutrient levels. However, it is important to gather information in order to determine the amount of nutrients point sources are adding to the receiving stream so that impairment of the receiving stream can be prevented.

The Department understands that it is in the permittee's best interest to not add more solution than necessary. Therefore, the Department will reduce the monitoring frequency from three per week to once per month. The monitoring frequency of once per month will allow the Department to gather sufficient data during the term of this permit concerning the variability in the levels of the Total Phosphorous and Nitrates discharged and any effects they will have on the receiving stream.

The permittee has the option to conduct a study during the term of this permit in order to correlate the levels of Total Phosphorous and Nitrates in the effluent with the levels of the nutrients in the added solution and the amount of solution used. The results of any such study must include a daily log of the total solution used as well as the nutrient content of the solution. The Total Phosphorous and Nitrates requirements will be reviewed at the time of the next permit renewal.

ISSUE #34

The outfall from Mossy Lake was listed in the 1991 permit (the permit prior to the current 2004 permit) as Outfall 002. The 2004 permit redesignated this outfall from Mossy Lake as SMS 002 (Stream Monitoring Station). This nomenclature is continued in the proposed permit. GP has always maintained that Mossy Lake was created in 1937 as part of the wastewater treatment system, which was well in advance of the enactment of the Clean Water Act. GP continues to maintain that Mossy Lake is part of its wastewater treatment system, and therefore, not waters of the United States. Without the GP effluent and maintenance of the dikes and final weir structure, Mossy Lake would be expected to be similar to upstream Coffee Creek during nonflooded conditions, consisting of shallow pools and potentially dry areas with no flow.

However, since the ADEQ has taken the position that Mossy Lake is a water of the United States and the discharge from Mossy Lake is listed as a Stream Monitoring Station, we do not believe additional permit limits are appropriate for this location. The 2004 permit listed only limitations for BOD, TSS and pH for SMS 002, which were also the only limitations in the 1991 permit. In this proposed permit, the ADEQ has included permit limits for dieldrin, copper, mercury and zinc, and reporting requirements for phosphorus and nitrate. These parameters are already proposed for monitoring at Outfall 001 or will otherwise be addressed. This issue of monitoring additional parameters at SMS 002 was also addressed in the comments received for the 2004 permit renewal. The ADEQ's response to a comment about including other parameters was as follows:

“Outfall SMS 002 was included in the permit to gather information on BOD5 and TSS prior to discharge to the Ouachita River from Coffee Creek downstream of Coffee Creek. AOX limits are included in the actual outfall (Outfall 001).”

The SMS 002 monitoring station always has been a point to ensure that the dissolved oxygen criteria for the Ouachita River are maintained per the water quality model that was done, and as stated by the ADEQ above. The application of limits for the same parameters already regulated at Outfall 001 represents a significant additional and redundant monitoring expense as well. The measurement of these additional parameters at SMS 002 may not be representative of GP's discharge given the substantial watershed that drains into Mossy Lake, which is outside of GP's control. Additionally, since sampling techniques for these substances (metals and dieldrin) require strict handling to avoid potential trace contamination, the collection of such samples is much more difficult at SMS 002 (a remote location) as compared to Outfall 001. The ADEQ is, in essence, treating this as both a stream monitoring station (SMS) and an effluent outfall by establishing additional limits in addition to the historically established water quality model limits. GP requests that the limits and monitoring requirements for dieldrin, copper, mercury, zinc, phosphorus and nitrate be completely removed from the permit for SMS 002.

In additional information submitted concerning dieldrin, the permittee stated that they have conducted additional monitoring for dieldrin at Outfall 001. Since Mossy Lake has been flooded for several months, no additional monitoring could be undertaken at SMS 002. All the data measured at Outfall 001 were non-detectable. Dieldrin is not used as a component of any process materials. The permittee requests the removal of dieldrin and the corresponding limits at Outfall 001. The detection of dieldrin at SMS 002 may not be representative of GP's discharge given the substantial watershed that drains into Mossy Lake, which is outside of GP's control. Furthermore, GP cannot be held responsible for any dieldrin concentrations measured at SMS 002 (Mossy Lake) since the ADEQ has taken the position that Mossy Lake is Waters of the State, and it has been demonstrated that GP's effluent does not contain dieldrin. Therefore, there should be no limits for dieldrin imposed at SMS 002 either.

RESPONSE #34

Requirements for Total Recoverable Copper, Total Recoverable Zinc, and Total Recoverable Mercury have been included in the permit because the Ouachita River is on the 303(d) list for those parameters. The inclusion of these parameters is further addressed in Response #10 of this Response to Comments. The Department will add language to the permit and the Fact Sheet to state that the permittee is only required to monitor Total Recoverable Copper, Total Recoverable Zinc, and Dieldrin at Outfall 001 in the event that Mossy Lake is flooded.

The Department understands that the Dieldrin levels at Outfall 001 were non-detect. However, the one result at SMS 002 was 0.113 µg/l. This was the level of dieldrin used to calculate the reasonable potential at SMS 002 since additional testing could not take place at SMS 002. Reasonable potential for water quality violations due to Dieldrin was demonstrated when both the Arkansas and the Louisiana standards were taken into account.

If Dieldrin is not detected at Outfall 001 and SMS 002 during the interim period of this permit, the final Dieldrin limits may 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.

Total Recoverable Copper and Total Recoverable Zinc will not be removed during this permit cycle since the permittee discharges to a reach of the Ouachita River which is impaired for these parameters.

Grab samples will be allowed to be taken at SMS 002 due to the difficulty in getting to the sampling site. Also, the permittee will then be able to use clean sampling techniques which will give a more accurate result.

The monitoring and reporting requirements for Nitrates and Total Phosphorous at SMS 002 are needed in order to gather information on the levels of those parameters which are entering the Ouachita River as a result of the nutrient solution added in the facility's wastewater treatment plant. It is important to monitor the levels of nutrients in the Ouachita River because excess nutrients in effluent can cause objectionable algal densities or other nuisance aquatic vegetation, or otherwise impair the designated uses of the receiving stream. The Department has reduced the required monitoring frequency for Nitrates and Total Phosphorous to once per week. Monitoring the levels of Nitrates and Total Phosphorous at that frequency will allow the required information to be collected.

ISSUE #35

The draft permit violates the federal prohibition on using receiving waters for in-stream treatment.

RESPONSE #35

Effluent limits found in the permit have been based upon all applicable federal and state regulations and will protect the water quality of the receiving stream.

ISSUE #36

WET Testing Issues

1. The frequency of WET testing has been increased from the current permit monitoring frequency (quarterly) to once per two months (page 1 of Part IA). Page 36 of the Fact Sheet documents that there have been no lethal failures during the prior five year term of the permit but there were three *P. promelas* sublethal failures (none have occurred since 2005) and seven *C. dubia* sublethal failures. The permittee attributed the sublethal test issues for the reproduction portion of the *C. dubia* test to a combination of laboratory problems and an indeterminate cause. Additional short term retest measures have also been included in the permit for a sublethal or lethal failure. The permittee requests the test frequency be retained at quarterly due to the inclusion of the rigorous retest and TRE schedule for lethal and sublethal failures, which provide more than adequate detection and resolution of any WET problems, and since sublethal issues do not necessarily indicate an acute or chronic toxicity potential, or a cause-effect relationship between adverse receiving water effects and sub-lethal failures.
2. In Paragraph 2.a.ii. and iii., the permittee must notify the ADEQ in writing within 5 days of the failure of any retest. The analysis of tests and composition of results by the testing laboratory may not be completed and the permittee notified within 5 days following the completion of the tests. We suggest a clarification that states that the ADEQ must be notified within 5 days of the permittee receiving written or verbal notification of the failure of any retest.
3. Paragraph 5 does not differentiate between TREs for lethal and sub-lethal failures. While the investigation methods may be similar, the process fails to consider that sub-lethal failures may result in situations in which specific toxicants cannot be identified. In following the progression of the TRE process described, expensive and perhaps unnecessary additional treatment and/or process modifications may be required to comply with limits that may result in no measurable benefit to the receiving water. There is no evidence for this requirement based on sublethal failures alone demonstrating a verifiable cause-effect relationship between adverse receiving water effects and

effluent discharges that had only sub-lethal failures. This is a major deficiency in the application of the sub-lethal WET endpoint as a permit limit, and this requirement of the TRE process should be removed from this permit.

4. Paragraph 5.e does not recognize that inconclusive TREs may occur as stated in EPA's Guidance document *Clarifications Regarding Toxicity Reduction and Identification Evaluations in the National Pollutant Discharge Elimination System Program*. This is especially true for sub-lethal failures of endpoints in which there is no demonstrated cause-effect link between a failed sub-lethal test and an in-stream biotic effect. We propose the following sentence be added to Paragraph 5.e before the last sentence on Page 15: "However, if an inconclusive TRE is demonstrated in which no specific control mechanism can be identified to eliminate a sub-lethal failure effect, then best practicable control mechanism that can be implemented to reduce or potentially reduce the sub-lethal effect shall be identified based on the evaluations of the data, studies and evaluations."

RESPONSE #36

1. The department partially agrees. A revision will be made to the final permit to state that WET testing for *P. promelas* will be once per quarter.

ADEQ acknowledges the receipt of an October 24, 2007 letter explaining the split sample WET tests conducted in 2007 in response to *C. dubia* sub-lethal failures; and the subsequent change in WET testing lab. However, based on the frequency of recent unexplained *C. dubia* sub-lethal failures, the testing frequency for *C. dubia* shall remain bi-monthly. Additionally, revisions will be made to Part II.21.6.a of the draft permit to add a provision, if appropriate, for a second WET testing frequency reduction for *C. dubia*.

2. The Department agrees, a revision to the final permit will be made to state "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."
3. The Department disagrees. According to the first paragraph of Part II.21.5 a greater frequency of sub-lethal test failure is required prior to the initiation of a sub-lethal TRE than a lethal TRE.

"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"

Anticipation of situations in which specific toxicants cannot be identified does not preclude the necessity for determining and reducing the source of toxicity (i.e. a TRE), lethal or sub-lethal. APCEC Reg 2.508 states "Toxic substances shall not be present in receiving waters, after mixing, in such quantities as to be toxic to human, animal, plant or aquatic life or to interfere with the normal propagation, growth and survival of the indigenous aquatic biota".

4. The Department disagrees. It is inappropriate to predict the outcome of a TRE. Results from the conclusion of a TRE are based on how the TRE was performed.

Additionally, EPA's Guidance document *Clarifications Regarding Toxicity Reduction and Identification Evaluations in the National Pollutant Discharge Elimination System Program* mentions several times potential measures in the event of the unusual circumstance of an inconclusive TRE.

- Page VI “EPA has demonstrated its intent for appropriate discretion and constructive resolution through its established record of working cooperatively with permittees in these cases.”
- Page 5 “If additional time is needed and technically warranted, the TRE may be extended for a reasonable period of time.”
- Page 11 “EPA’s 1989c *Whole Effluent Toxicity Basic Permitting Principles and Enforcement Strategy* states that “In a few highly unusual cases where the permittee has implemented an exhaustive TRE plan, applied appropriate influent and effluent controls, maintained compliance with all other effluent limits, compliance schedules, monitoring, and other permit requirements, but is still unable to attain or maintain compliance with toxicity-based limits, special technical evaluation may be warranted and civil penalty relief granted. Solutions in these cases could be pursued jointly with expertise from EPA and/or the States as well as the permittee.” EPA’s WET control policy reiterates this statement (USEPA 1994c).”

ISSUE #37

Mr. Jim Cutbirth is the environmental manager at Georgia-Pacific’s paper mill in Crossett. He talked about the company’s values and principals. The facility believes in environmental excellence.

Mr. Mike Smith stated that he was appreciative of the Department holding the hearing and the job that we do protecting the Ouachita River. Crossett was born a mill town. He appreciates Georgia-Pacific and all of the investments they have made in the community – capital, equipment and the people. They are one of the first communities to practice sustainable renewable forestry which carries over today. There is continuous training for the employees. He asked that the Department issue the permit if the facility is meeting the standards as required.

Mr. Eddie Wayne Burch stated that he represented Georgia-Pacific and is a member of the union through the pulp and paperwork resource council (PPRC) which was started because of issues like this. The PPRC was created so that both sides of the story could be heard. There were odor problems with the Bassett paper mill in Louisiana which discharged into the Ouachita River. Georgia-Pacific has always cleaned their water up as required. You cannot fish in Mossy Lake or Coffee Creek.

Mr. Brad Akers serves as the president of the Crossett Area Chamber of Commerce. Georgia-Pacific has always been an active member in chamber activities. They have benefited the community through highway and park clean ups, supplying new playground equipment at the city park, construction of new zoo habitats, and various education programs at the schools. The Chamber of Commerce supports this facility and their presence in the community, and appreciate all that they do to make Crossett a better place for the residents.

Mr. Norman Hill is a business manager with the Crossett School District Administration. He has always found Georgia-Pacific to be a great corporate citizen. They are very responsive to any requests to help improve the health of the students. Mr. Hill is very much in favor of this permit because of Georgia-Pacific’s concern for the community. The employees of Georgia-Pacific live and raise their families in the area.

Mr. Anthony Cockrell stated that he lives close to Coffee Creek. Mr. Cockrell and his family are on well water. All of his family are healthy. He fishes in the Ouachita River. He is employed by the City of Crossett Wastewater Operations. He deals with the permittee and their guidelines as far as their permits.

They are very strict on compliance with permits. He would like the public to feel more comfortable with these permits.

Ms. Teresa Walsh talked about the testing performed as a part of the permit application and the additional testing that was added to the permit. She stated that the color of the wastewater was due to tannins. Testing has been conducted which demonstrates that the river is essentially the same one mile north of the confluence of Coffee Creek and the Ouachita River as it is one mile downstream, i.e., at the Louisiana state line. Georgia-Pacific reached out to several police juries to share information about the quality of the effluent. The company is involved in several environmental outreach programs such as highway cleanups. Neither she nor the company she works for would do anything harmful to the river.

RESPONSE #37

The Department acknowledges these comments.

ISSUE #38

Senator Jimmy Jeffers (Arkansas District 24) was raised on the Ouachita River. His mother was a native of Louisiana and he cares for southern Arkansas and Northern Louisiana. He stated that he doesn't want any harm done to the Ouachita River. If all current ADEQ, LDEQ, and EPA requirements are being met and the monitoring is carried out properly, he would like to see this permit approved.

RESPONSE #38

The permit complies with the all applicable regulations, including the water quality standards for Arkansas and Louisiana and the technology based standards set forth in 40 CFR 430, Subpart B. A final permit is being issued with the response to comments.

ADEQ COMMENTS

1. The second and third digits of the production-based factor used to calculate the AOX limit were transposed. Also, the effluent guideline citation for the production-based factors for AOX needs to be changed from 40 CFR 430.24(b)(1) to 40 CFR 430.24(a)(1).
2. On page 6 of the Fact Sheet, the monthly average concentration limit for BOD₅ needs to be changed from 64.6 mg/L to 64.4 mg/L (after rounding).
3. On Page 16 of the Fact Sheet, the production rate for paperboard and tissue paper of 1512 tons/day needs to be changed to 1502 tons/day.
4. On Page 20 of the Fact Sheet, the wording "Louisiana standard" should be changed to reflect "limit cited in the Louisiana Water Quality Regulations".
5. On Page 22 of the Fact Sheet, In the last sentence in the fourth section, place a space between "Part 429" and "that". Remove the extra "e" from the word discharge. Also, in the third section, change "430" to "414" and the wording "Thermosetting Resins" for this citation to "Commodity Organic Chemicals".

6. On Page 23 of the Fact Sheet, In the fifth section, the Department clarified that no additional allocations for discharges from the Chemical Plant were added to the overall limits for BOD5 and TSS as was done in the previous permit.
7. The pH monitoring frequencies were clarified to be once per day at Outfall 001 and SMS 002.
8. The justification for the inclusion of monitoring and reporting requirements for dioxins at Outfall 001 has been corrected.