ADEQ
ARKANSAS
Department of Environmental Quality

RESPONSE TO COMMENTS
FINAL PERMIT DECISION

This is our response to comments received on the subject draft permit in accordance with regulations promulgated at 40 CFR Part 124.17.

Permit No. : AR0001210

Applicant : George-Pacific Corporation
d/b/a Georgia-Pacific Crossett Paper Operation

Prepared by : Mo Shafii

Permit Action : ADEQ has made a decision to issue NPDES Permit No. AR0001210 for Georgia-Pacific Corporation (GP). The draft permit was sent to public notice on May 12, 2004. At the same time, due to public interest, ADEQ scheduled a public hearing on the draft permit on June 22, 2004 to receive public comment on the permit. The following is the final permit decision and response to comments.

Date Prepared : August 3, 2004

The following comments have been received on the draft permit during:

1. Public notice Comments:

Mr. Richard H. Mays dated April 12, 2004 (Comments #1 through #5 and Comment #7).
Mr. Daniel A. DeVun, Audubon Arkansas dated April 12, 2004 (Comments #1 through #5 and Comment #6)
Mr. John J. Hand (Permittee) dated March 30, 2004 (Comments #8 through #18)

2. Public Hearing Comments:

Thomas W Gathright (Permittee) dated April 29, 2004 (Comment #19).
The Department has received several written and oral comments from the concerned citizens of West Crossett in opposition to and in favor of the issuance of the permit (Comment #20).
Daniel DeVun (Comment #21)

ADEQ Comment

Mr. May in a letter dated April 12, 2004, addressed several issues such as the purchase of properties from a small number of residents in the area, odor problems, minority and low income populations, chemicals contained in the water which volatize and are emitted as vapors and then migrate to surrounding residences and the properties of the surrounding residents, causing multiple respiratory, eye, throat, and other physical ailments and conditions, and causing corrosion of metals on homes, appliances, automobiles and other personal property and fixtures, thereby rendering them useless.

The above issues are not relevant to the draft NPDES permit. In accordance with 40 CFR 124.17(a) (2), t he Department will respond only to significant comments which are related to the NPDES permit.

I. Response to issues raised

Mr. Mays and Mr. DeVun summary comments are as follows:

Issue #1

A. The permit limits are extremely high; and

B. the State of Louisiana Department of Environmental Quality has complained about the lax effluent standards of this permit and the resulting poor water quality in the Ouachita River.

Response #1

A. The permit was drafted based on technology-based effluent limits pursuant to 40 CFR Part 122.44 (a) and on State Water Quality Standard**s** and requirements pursuant to 40 CFR Part 122.44 (d), whichever was the most stringent. However; after a conversation with the permittee in regard to TSS limits, the permittee agreed on a voluntary basis that TSS limits be revised to 18,000 lbs/day (monthly average) and 30,000 lbs/day (Daily maximum) at outfall SMS 002 and TSS limits at outfall 001 has been reduced to 37,720 lbs/day (Monthly Average) and 70,188 lbs/day (Daily Maximum).

B. Staff does not agree. The permit was mailed to LDEQ and ADEQ did not receive any comments (i.e. letter, e-mail) from LDEQ. Additionally; the draft permit was approved by EPA on February 25, 2004.

Issue #2

The permittee name should be “Georgia-Pacific Corporation” rather than informal name of “Georgia-Pacific Crossett Paper Operation”

Response #2

Staff agrees. The permittee name on the permit will change to:

Georgia-Pacific Corporation
d/b/a Georgia-Pacific Crossett Paper Operation

Issue #3

The permit is written for daily maximum allowances; therefore the measurement frequency should be daily, not three/week.

Response #3

Staff does not agree. The permit has both monthly average and daily maximum limits. Regulations promulgated at 40 CFR 122.44(i) (l) require the permit to establish monitoring requirements which assure compliance with permit limitations. Sample type and sampling frequency for BOD5 and TSS based on EPA recommended frequencies for self-monitoring of discharges flow of >10 MGD, should be once/day. However; Based on “1996 EPA Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies” and compliance history of the last two years (2002-2004) the measurement frequencies for BOD5, TSS, and pH have been changed to “Three/week”. Measurement frequencies for other pollutants are based on the existing permit. Measurement frequency for Adsorbable Organic Halogens (AOX) has been changed from once/quarter to Daily. The monitoring frequency at the internal outfalls is proposed to be once per month which is consistent with the guidelines (40 CFR 430.02). Additionally; measurement frequency requirements for BOD5, TSS, and pH at Outfall SMS 002 have been changed to three/week based on 1996 EPA Interim Guidance (Please see response # 10 below), even though this document recommends once/week for BOD5 and for TSS.

Issue #4

The frequency of monitoring at the SMS is very important. At a minimum a “group parameter: such as AOX should be monitored at this location to insure adequate assimilation. Specifically chloroform, TCDD, and TCDF monitoring at this location should be taken at that location as well”.

Response #4

Staff does not agree. Outfall SMS 002 was included in the permit for gathering information on BOD5 and TSS prior to discharge to the Ouachita River from Coffee Creek downstream of Mossy Lake. AOX limits are included in the actual outfall (Outfall 001). Other pollutants such as chloroform, TCDD, and TCDF and more are included in internal outfalls based on 40 CFR 430.24 for this type of industry.

Issue #5

There are no emission standards for air emissions from the system in this permit.

Response #5

Water Division does not have any jurisdiction regarding air emissions. Please contact Air Division of ADEQ for more information in regard to air emissions.

Issue #6

“ADEQ has increased the concentrations of contaminants to be discharged at Outfall 001 and the SMS [002]”.

Response #6

Staff does not agree. BOD5 and TSS Concentrations limits in the draft permit are more stringent than the existing permit (i.e. BOD5 of 70 mg/l vs. report only). The previous issued permit has monitoring and reporting requirements for concentration limits. The draft permit actually contains concentration limits for BOD5 and TSS at outfall 001. Stream Monitoring Station (SMS) 002 is for monitoring purposes only, therefore, no concentration limits have been included. Additionally, please see issue #9 below where the permittee requested concentration limits to be removed based on 40 CFR 122.45(f). However; ADEQ did not grant with this request.

Issue #7

Under Executive Order 12898 of February 11, 1994, entitled “Federal Actions to address Environmental Justice in Minority Populations and Low-Income Populations” ADEQ and EPA have the authority and responsibility to address and rectify these adverse and disproportionate impacts on the citizens of West Crossett. The actions that can and should be taken are the following:

A. GP should be required to reroute its wastewater treatment system to another location that would eliminate the System’s impact upon

the citizens of West Crossett;
B. GP should be required to enclose its wastewater treatment system, where possible (e.g., stream and ditches) in pipes to reduce air emissions from the wastewater;
C. GP should be required to extensively pre-treat its wastewater before discharge into the System (discharge from GP flows through the West Crossett area in a series of open ditches, ponds, lagoons and streams) to eliminate the chemicals that volatize and migrate to the properties of the West Crossett residents;
D. Impose permit restrictions on the contaminants and concentrations of contaminants that may be emitted by air from the System, and limit such emissions to concentrations that will not cause irritating or harmful effects to humans or property; and
E. GP should be required to extensively and continuously monitor air quality in the West Crossett area surrounding the System to identify the contaminants being emitted from the System, their concentrations and aerial extent.

Response #7

The Water Division of ADEQ is responsible for issuing permits to protect water quality based on federal and state regulations. GP has complied with all federal and state regulations regarding water quality. Additionally, Executive Order 12898 is a federal action not a state regulation. At the federal level, the EPA approved the draft permit prior to the public notice (Letter dated 2/25/2004). Therefore, the Department believes that Executive Order 12898 has been considered. All air issues should be directed to ADEQ's Air Division.

Permittee summary comments are as follows:

ISSUE #8

The correct Zip Code on the address should be 71635.

RESPONSE #8

The Department concurs.

ISSUE #9

Permittee believes it is inappropriate to require concentration limits or flow limits in addition to mass based limits. Permittee requested that neither concentration nor flow-based limits in the permit.

RESPONSE #9

The Department does not concur. Inclusion of concentration limits in addition to mass limits are based on 40 CFR 122.45(f)(2) even though this citation states "may". It is the ADEQ Director's discretion to be more stringent than federal regulation (40 CFR 122.449d (d)). Additionally; permittee has

submitted another GP permit in Region 6 (Louisiana DEQ permit number LA0005258) for justification to not include the concentration limits. This permit discharges to the Mississippi River (7Q10 > 100 cfs) not to a small receiving stream (7Q10 <100 cfs). Based on ADEQ policy discharges to a small stream must included mass and concentration limits (Memo dated March 28, 1994). Because BOD impacts on the stream and on instream dissolved oxygen levels is not simply a function of pollutant mass, but rather a function of both effluent flow and pollutant concentration. Thus, a low-flow-high BOD effluent and a high-flow-low BOD effluent would not be expected to have the same ultimate impact in the receiving stream, even though the total mass of BOD was the same. For this reason, it cannot be said with any degree of certainty that sufficient dilution capacity exists to provide an adequate margin of safety to protect the WLA without imposing concentration limits. However; daily maximum flow could be included in the permit in lieu of concentration limits.

ISSUE #10

Measurement frequency requirements for BOD5, TSS, and pH for Outfall SMS 002 be revised to three/week the same as previous issued permit and based on EPA Interim Guidance for performance-based Reduction of NPDES Monitoring Frequencies.

RESPONSE #10

Staff agrees. ADEQ used the last two years (2002-2004) as required in EPA's Guidance to calculate the ratio of long term average effluent data versus permit limit for BOD, TSS, and pH. The results are as follows:

Pollutant	Ratio of Long Term Effluent Average to Monthly average Limit
BOD5	38%
TSS	29%
pH	88%

Based on Tables 1 and 2 of EPA's Guidance, the BOD5 and TSS monitoring frequency can be reduced to once/week and pH stay as three/week. The permit writer made a decision based on the permittee's requested monitoring frequency for BOD5, TSS, and pH changed to three/week similar to previous permit.

ISSUE #11

The footnote at the bottom of page 2 in regard to condition No. 3 should be deleted.

RESPONSE #11

Staff agrees.

ISUUE #12

Modify the last sentence of condition number 6 of Part II with "Written approval for changes to such disposal …"

RESPONSE #12

The last sentence has been revised to add "(Land application only)". Since Permittee has a Solid Waste permit, this language would not apply to the Permittee.

ISSUE #13

Condition No. 5 of Section C of Part II should be revised so that electronic submission of DMR is acceptable.

RESPONSE #13

The Department cannot grant this request at this time.

ISSUE #14

Effluent dilution on page 1 of Part III should be 100%, 90%, 80%, 40%, and 20% with the critical dilution of 80%.

RESPONSE #14

Effluent dilution series on page 1 of Part III as well as page 18 of Fact Sheet are correct based on Attachment 1 of CPP and critical dilution of 80%.

ISSUE #15

On page 7 of Part III since EPA has stated that the accuracy for toxicity tests cannot be ascertained then the DMR certification statement should be modified with the language which is offered by Permittee.

RESPONSE #15

Staff does not agree. The certification in the permit is standard language based on 40 CFR 122.22(d).

ISSUE #16

Storm Water Pollution Prevention Plan Requirements of the permit should be deleted.

RESPONSE #16

Staff does not agree. A Storm Water Pollutant Prevention Plan (SWPPP) is required in order to identify potential sources of pollution which may reasonably be expected and have effect on discharge limits.

ISSUE #17

Remove the condition 3.i.(iii.) of page 23 of the Part III.

RESPONSE #17

Staff agrees.

ISSUE #18

Condition No. 6 of Part III, in accordance with 40 CFR 430.01(i) MQL should be ML (Minimum Level). The method for TCDD also should be 1613B or the most current method. The same method number applies to the table in condition number 7 for TCDD and TCDF.

RESPONSE #18

Staff partially agrees. MQL has been changed to ML. In accordance with 40 CFR 430.01(i) and the permittee must use EPA Method 1613 or current method. Additionally; please see Section C(3) of Part II of the permit.

ISSUE #19

No definition of “When Mossy Lake is flooded” was provided for Outfall SMS 002.

RESPONSE #19

Staff agrees. The following definition has been included to Outfall SMS 002. This definition is consistent with the existing permit.

“A flooded state is defined a the period when the gage at the Felsenthal Lock & Dam exceeds 62 feet and also for the two weeks following the recession of flood waters below 62 feet.”

ISSUE #20

Several written and oral comments were received during the public hearing which addressed
odor problems, minority and low income populations, chemicals contained in the water which volatize and are emitted as vapors and then migrate to surrounding residences and the properties of the surrounding residents, causing multiple respiratory, eye, throat, and other physical ailments and conditions, eating up the paint off a riding mower and water heaters, and causing corrosion of metals on homes, appliances, automobiles and other personal property and fixtures, thereby rendering them useless.

RESPONSE #20

The above issues are not relevant to the draft NPDES permit. In accordance with 40 CFR 124.17(a) (2), the Department will respond only to significant comments which are related to the NPDES permit. Mr. Richard May will copy the final permit for his clients since most of the comments are similar and Mr. Richard Mays asked his clients to sign the comment sheet and give it to ADEQ representative at the meeting.

ISSUE #21

Mr. Daniel DeVun made an oral comment in regard to an excess amount of TSS for this permit and air issue.

RESPONSE #21

Please see response #1 above.

ISSUE #22

Mr. Richard Mays submitted a written comment after the deadline of the public notice comment period and the public hearing in regard to Mossy Lake and Coffee Creek. He believes that Mossy Lake is part of the permittee's treatment system and this should be considered as "Water of the State". Additionally, the proposed permit does not require pretreatment of its wastewater to remove contaminants that are released into the air.

REAPONSE #22

As stated on the draft permit outfall 001 discharges into Mossy Lake. Therefore, ADEQ did not consider Mossy Lake as part of the treatment system. However, during ADEQ and EPA site visit in 2000 (June 14-15, 2000), it was noticed that GP effluent and Coffee Creek co-mingle above Mossy Lake. In 2000 the permittee was asked to divert the discharge from Coffee Creek into Mossy Lake via a man made canal. The Permittee concurred with this request (e-mail dated 9/22/03 in response to EPA comments dated 9/4/2003). Therefore, GP effluent flows along Loop Road in the man made canal until it reaches Mossy Lake. Additionally, as stated in response #1 above the stream monitoring station (SMS 002) is for monitoring purposes only from Mossy Lake, then into Coffee Creek, then into the Ouachita River. For clarification, description of Outfall 001 has been expanded to read "Outfall 001: Mossy Lake, then into Coffee Creek, then into the Ouachita River in Segment 2D of the Ouachita River. Additionally; Coffee Creek and Mossy Lake have been exempted from Section 2.406 and all chapter 5 of the Regulation No. 2.

Permit number: AR0001210

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT D ISCHARGE 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.),

Georgia-Pacific Corporation
d/b/a Georgia-Pacific Crossett Paper Operations
P. O. Box 3333
Crossett, AR 71653

is authorized to discharge from a facility located at

on the north side of Hwy. 82 West in Section 18, Township 17 South, Range 8 West in Ashley County, Arkansas.

Latitude: 33E 08' 30"; Longitude: 91E 58' 12"

to receiving waters named:

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

SMS 002: Downstream of Mossy Lake prior 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 : 33E 06' 45"; Longitude: 92E 02' 17"
SMS 002:Latitude : 33E 02' 00"; Longitude: 92E 04' 24"
Outfall 101:Latitude : 33E 08' 29"; Longitude: 91E 58' 28"
Outfall 102:Latitude : 33E 08' 29"; Longitude: 91E 58' 28"
Outfall 103:Latitude : 33E 09' 29"; Longitude: 91E 58' 29"

in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, III, and IV hereof.

This permit shall become effective on September 1, 2004.

This permit and the authorization to discharge shall expire at midnight, August 31, 2009.

Signed this 31st day July of 2004.

Martin Maner, P.E.
Chief, Water Division
Arkansas Department of Environmental Quality

SECTION A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: OUTFALL 001-process wastewater(Paper Mill operations), sanitary wastewater, landfill leachate, site stormwater++, chemical plant, building products, City of Crossett, truck wash and backwash wastewater

During the period beginning on the effective date and lasting through date of expiration, the permittee is authorized to discharge from outfall serial number 001. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	**Discharge Limitations**				**Monitoring Requirements**	
	Mass (lbs/day)		Other Units (specify)		Measurement	Sample
	Monthly Avg	Daily Max	Monthly Avg	Daily Max	Frequency	Type
Flow (MGD)+	N/A	N/A	N/A	N/A	Daily	Totalizing Meter
Biochemical Oxygen Demand (BOD5)	26310	50617	70 mg/l	135 mg/l	Three/week	24-hr composite
Total Suspended Solids (TSS)	37720	70188	134 mg/l	249 mg/l	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)*	2145.8	3275.53	N/A	N/A	Daily	24-hr composite
Chronic Biomonitoring**	N/A	N/A	N/A	N/A	Once/Quarter	24-hr composite

Pimephales promelas (Chronic)	7-day Average		
Pass/Fail Growth (7-day NOEC) **TGP6C**	Report (Pass=0/Fail=1)	Once/Quarter	24-hr composite
Pass/Fail Lethality (7-day NOEC) **TLP6C**	Report (Pass=0/Fail=1)	Once/Quarter	24-hr composite
Survival (7-day NOEC) **TOP6C**	Report %	Once/Quarter	24-hr composite
Coefficient of Variation **TQP6C**	Report %	Once/Quarter	24-hr composite
Growth (7-day NOEC) **TPP6C**	Report %	Once/Quarter	24-hr composite
Ceriodaphnia dubia (Chronic)	7-day Average		
Pass/Fail Growth (7-day NOEC) **TGP3B**	Report (Pass=0/Fail=1)	Once/Quarter	24-hr composite
Pass/Fail Lethality (7-day NOEC) **TLP3B**	Report (Pass=0/Fail=1)	Once/Quarter	24-hr composite
Survival (7-day NOEC) **TOP3B**	Report %	Once/Quarter	24-hr composite
Coefficient of Variation **TQP3B**	Report %	Once/Quarter	24-hr composite
Reproduction(7-day NOEC) **TPP3B**	Report %	Once/Quarter	24-hr composite

			Minimum	Maximum		
pH	N/A	N/A	6.0 s.u.	9.0 s.u.	Three/week	Grab

\+ Report monthly average and daily maximum as MGD.
++ See Condition No. 3 of Part III (Storm Water Pollution Prevention plans Requirements)).
* See condition No. 7 of Part III (Testing Requirements).
** See condition No. 2 of Part III (Biomonitoring Requirements).
*** See Condition No. 6 of Part III (Dioxin Monitoring Requirements).

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 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(R-1) before discharge to Mossy Lake.

SECTION A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: Stream Monitoring Station (SMS) 002-Downstream of Mossy Lake prior to Coffee Creek and Ouachita River

During the period beginning on the effective date and lasting through date of expiration, the permittee is authorized to discharge from serial number SMS002. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	**Discharge Limitations**				**Monitoring Requirements***	
	Mass (lbs/day)		Other Units (specify)		Measurement	Sample
	Monthly Avg	Daily Max	Monthly Avg	Daily Max	Frequency	Type
Flow (MGD)+	N/A	N/A	N/A	N/A	Daily	Totalizing Meter
Biochemical Oxygen Demand (BOD5)						
October-July	8000	12000	Report mg/l	Report mg/l	Three/week	24-hr composite
August	7262	10893	Report mg/l	Report mg/l	Three/week	24-hr composite
September	5911	8867	Report mg/l	Report mg/l	Three/week	24-hr composite
Total Suspended Solids (TSS)	18000	30000	Report mg/l	Report mg/l	Three/week	24-hr composite
			Minimum	Maximum		
pH	N/A	N/A	6 s.u.	9 s.u.	Three/week	Grab

+ Report monthly average and daily maximum as MGD.

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

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 taken in compliance with the monitoring requirements specified above shall be taken at the following location: at the SMS 002, after Mossy Lake prior to Coffee Creek.

SECTION A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: Internal Outfall 101 - Line 1A of Hard wood Effluent

During the period beginning on effective date of the permit and lasting through date of expiration, the permittee is authorized to discharge from internal outfall serial number 101. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	**Discharge Limitations**				**Monitoring Requirements**	
	Mass (lbs/day)		Other Units (specify)		Measurement	Sample
	Monthly Avg	Daily Max	Monthly Avg	Daily Max	Frequency	Type
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/month	24-hr composite
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	N/A	N/A	N/A	31.9 pg/l*	Once/month	24-hr composite
Chloroform	4.69	7.87	N/A	N/A	Once/week	24-hr composite
Trichlorosyringol	N/A	N/A	N/A	<2.5 ug/l *	Once/month	24-hr composite
3,4,5-Trichlorocatechol	N/A	N/A	N/A	<5.0 ug/l*	Once/month	24-hr composite
3,4,6-Trichlorocatechol	N/A	N/A	N/A	<5.0 ug/l*	Once/month	24-hr composite
3,4,5-Trichloroguaiacol	N/A	N/A	N/A	<2.5 ug/l*	Once/month	24-hr composite
3,4,6-Trichloroguaiacol	N/A	N/A	N/A	<2.5 ug/l*	Once/month	24-hr composite
4,5,6-Trichloroguaiacol	N/A	N/A	N/A	<2.5 ug/l*	Once/month	24-hr composite
2,4,5-Trichlorophenol	N/A	N/A	N/A	<2.5 ug/l*	Once/month	24-hr composite
2,4,6-Trichlorophenol	N/A	N/A	N/A	<2.5 ug/l*	Once/month	24-hr composite
Tetrachlorocatechol	N/A	N/A	N/A	<5.0 ug/l*	Once/month	24-hr composite
Tetrachloroguaiacol	N/A	N/A	N/A	<5.0 ug/l*	Once/month	24-hr composite
2,3,4,6-Tetrachlorophenol	N/A	N/A	N/A	<2.5 ug/l*	Once/month	24-hr composite
Pentachlorophenol	N/A	N/A	N/A	<5.0 ug/l*	Once/month	24-hr composite

+ Report monthly average and daily maximum as MGD.
* See Part III, Condition No. 7 (Testing Requirements).

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at internal outfall 101(Line 1A-Hardwood), prior to commingling with other waste streams.

SECTION A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: Internal Outfall 102 - Line 1B of Hard wood Effluent

During the period beginning on effective date of the permit and lasting through date of expiration, the permittee is authorized to discharge from internal outfall serial number 102. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	Mass (lbs/day)		Other Units (specify)		Measurement	Sample
	Monthly Avg	Daily Max	Monthly Avg	Daily Max	Frequency	Type
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/month	24-hr composite
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	N/A	N/A	N/A	31.9 pg/l*	Once/month	24-hr composite
Chloroform	4.51	7.57	N/A	N/A	Once/week	24-hr composite
Trichlorosyringol	N/A	N/A	N/A	<2.5 ug/l *	Once/month	24-hr composite
3,4,5-Trichlorocatechol	N/A	N/A	N/A	<5.0 ug/l*	Once/month	24-hr composite
3,4,6-Trichlorocatechol	N/A	N/A	N/A	<5.0 ug/l*	Once/month	24-hr composite
3,4,5-Trichloroguaiacol	N/A	N/A	N/A	<2.5 ug/l*	Once/month	24-hr composite
3,4,6-Trichloroguaiacol	N/A	N/A	N/A	<2.5 ug/l*	Once/month	24-hr composite
4,5,6-Trichloroguaiacol	N/A	N/A	N/A	<2.5 ug/l*	Once/month	24-hr composite
2,4,5-Trichlorophenol	N/A	N/A	N/A	<2.5 ug/l*	Once/month	24-hr composite
2,4,6-Trichlorophenol	N/A	N/A	N/A	<2.5 ug/l*	Once/month	24-hr composite
Tetrachlorocatechol	N/A	N/A	N/A	<5.0 ug/l*	Once/month	24-hr composite
Tetrachloroguaiacol	N/A	N/A	N/A	<5.0 ug/l*	Once/month	24-hr composite
2,3,4,6-Tetrachlorophenol	N/A	N/A	N/A	<2.5 ug/l*	Once/month	24-hr composite
Pentachlorophenol	N/A	N/A	N/A	<5.0 ug/l*	Once/month	24-hr composite

+ Report monthly average and daily maximum as MGD.
* See Part III, Condition No. 7 (Testing Requirements).

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at internal outfall 102(Line 1B-Hardwood), prior to commingling with other waste streams.

SECTION A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: Internal Outfall 103 - Line 2 of Soft wood Effluent

During the period beginning on effective date of the permit and lasting through date of expiration, the permittee is authorized to discharge from internal outfall serial number 103. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	**Discharge Limitations**				**Monitoring Requirements**	
	Mass (lbs/day)		Other Units (specify)		Measurement 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/month	24-hr composite
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	N/A	N/A	N/A	31.9 pg/l*	Once/month	24-hr composite
Chloroform	5.02	8.4	N/A	N/A	Once/week	24-hr composite
Trichlorosyringol	N/A	N/A	N/A	<2.5 ug/l *	Once/month	24-hr composite
3,4,5-Trichlorocatechol	N/A	N/A	N/A	<5.0 ug/l*	Once/month	24-hr composite
3,4,6-Trichlorocatechol	N/A	N/A	N/A	<5.0 ug/l*	Once/month	24-hr composite
3,4,5-Trichloroguaiacol	N/A	N/A	N/A	<2.5 ug/l*	Once/month	24-hr composite
3,4,6-Trichloroguaiacol	N/A	N/A	N/A	<2.5 ug/l*	Once/month	24-hr composite
4,5,6-Trichloroguaiacol	N/A	N/A	N/A	<2.5 ug/l*	Once/month	24-hr composite
2,4,5-Trichlorophenol	N/A	N/A	N/A	<2.5 ug/l*	Once/month	24-hr composite
2,4,6-Trichlorophenol	N/A	N/A	N/A	<2.5 ug/l*	Once/month	24-hr composite
Tetrachlorocatechol	N/A	N/A	N/A	<5.0 ug/l*	Once/month	24-hr composite
Tetrachloroguaiacol	N/A	N/A	N/A	<5.0 ug/l*	Once/month	24-hr composite
2,3,4,6-Tetrachlorophenol	N/A	N/A	N/A	<2.5 ug/l*	Once/month	24-hr composite
Pentachlorophenol	N/A	N/A	N/A	<5.0 ug/l*	Once/month	24-hr composite

\+ Report monthly average and daily maximum as MGD.
* See Part III, Condition No. 7 (Testing Requirements).

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at internal outfall 103(Line 2 of soft wood), prior to commingling with other waste streams.

SECTION B. SCHEDULE OF 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.

PART II
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; or for denial of a permit renewal application. **Any values reported in the required Discharge Monitoring Report 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 ten thousand dollars ($10,000) 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 condition II 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 II. A.3., if any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Regulation No. 2, as amended, (regulation establishing water quality standards for surface waters of the State of Arkansas) 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 or prohibitions established under Regulation No. 2 (Arkansas Water Quality Standards), 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 II.B.4.a.), and “Upsets” (Part II.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 statues or regulations which defeats the regulatory purposes of the permit may be 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

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 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 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 permitee 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 Part 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 II.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 II.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 II.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 base permit effluent limitations if the requirements of Part II.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 permitee 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 II.D.6.: and
(4) The permittee complied with any remedial measures required by Part II.B.3.
c. Burden or 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 for land application only must be obtained from the ADEQ.

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). 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's signed and certified as required by Part II.d.11 and all other reports required by Part II.D. (Reporting Requirements), shall be submitted to the Director at the following address:

NPDES Enforcement Section
Water Division
Arkansas Department of Environmental Quality
8001 National Drive
P.O. Box 8913
Little Rock, AR 72219-8913

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 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) analyses were formed;
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:

For Industrial Dischargers

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 Part122.29(b).
b. The alternation or addition could significantly change the nature or increase the quality of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40CRF Part 122.42 (a)(1).

For POTW Dischargers:

a. Any change in the facility discharge (including the introduction of any new source or significant discharge or significant changes in the quantity or quality of existing discharges of pollutants)must be reported to the permitting authority. In no case are any new connections, increased flows, or significant changes in influent quality permitted that cause violation of the effluent limitations specified herein.

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 II.C.5. (Reporting). **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 III of the permit to be reported within 24 hours.
c. The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

7. **Other Noncompliance**

The permittee shall report all instances of noncompliance not reported under Part II.D.4,5 and 6, at the time monitoring reports are submitted. The reports shall contain the information listed at Part II.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, in 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)(2)48 FR 14153, April 1983, as amended at 49 FR 38046, September 26, 1984).
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)(48 FR 14153, April 1, 1983, as amended at 49 FR 38046, September 26, 1984).

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

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. <u>Availability of Reports</u>

Except for data determined to be confidential under 40 CFR Part 2 and

Regulation 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 Pollution and Ecology. 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 II.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 III
OTHER CONDITIONS

1. The operator of this wastewater treatment facility shall be licensed by 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. **WHOLE EFFLUENT TOXICITY TESTING (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: **001**

CRITICAL DILUTION (%): **80%**

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

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/600/4-91/002 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/600/4-91/002, 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 defined as the greatest effluent dilution at and below which lethality 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.

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.

d. Test failure is defined as a demonstration of statistically significant sub-lethal or lethal effects to a test species at or below the effluent critical dilution.

2. PERSISTENT LETHALITY The requirements of this subsection apply only when a toxicity test demonstrates significant lethal effects at or below the critical dilution. Significant lethal effects are herein defined as a statistically significant difference at the 95% confidence level between the survival of the appropriate test organism in a specified effluent dilution and the control (0% effluent).

a. Part I Testing Frequency Other Than Monthly

i. The permittee shall conduct a total of two (2) additional tests for any species that demonstrates significant lethal effects at or below the critical dilution. The two additional tests shall be conducted monthly during the next two consecutive months. The permittee shall not substitute either of the two additional tests in lieu of routine toxicity testing. The 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 one or both of the two 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 the failure of any retest, and the TRE initiation date will be the test completion date of the first failed retest. A TRE may be also be required due to a demonstration of persistent significant sub-lethal

effects or intermittent lethal effects at or below the critical dilution, or for failure to perform the required retests.

iii. If one or both of the two additional tests demonstrates significant lethal effects at or below the critical dilution, the permittee shall henceforth increase the frequency of testing for this species to once per quarter for the life of the permit.

iv. The provisions of Item 2.a 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 lethal effects at or below the critical dilution. A TRE may be also be required due to a demonstration of persistent significant sub-lethal effects or intermittent 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.

iv. 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.

v. 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.

vi. The percent coefficient of variation between replicates shall be 40% or less in the critical dilution, unless significant lethal or nonlethal 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.

Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%. A repeat test shall be conducted within the required reporting period of any test determined to be invalid.

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/600/4-91/002 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/600/4-91/002 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 an 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.

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 are representative of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on an intermittent basis.

iii. 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 4 degrees Centigrade during collection, shipping, and/or storage.

iv. 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 collect an effluent composite sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of efflu-

ent. 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.

v. 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.

vi. 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/600/4-91/002, 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 II.C.7 of this permit. The permittee shall submit full reports upon the specific request of the Department. For any test which fails, is considered invalid or which is terminated early for any reason, the full report must be submitted for 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 biomonitoring data for each species is to be recorded on the DMR for each reporting period. The data submitted should reflect the LOWEST survival results for each species during the reporting period. 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 ADEQ review.

c. The permittee shall submit the results of each valid toxicity test on DMR for that reporting period in accordance with PART II.D.4 of this permit, as follows below. Submit retest information clearly marked as such with the following 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 lethality 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 No Observed Effect Concentration (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, Parameter No. TQP6C.

ii. Ceriodaphnia dubia

(A) If the NOEC for lethality 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 No Observed Effect Concentration (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, Parameter No. TQP3B.

5. Monitoring Frequency Reduction

a. The permittee may apply for a testing frequency reduction upon the successful completion of the first four consecutive quarters of testing for one or both test species, with no lethal or sub-lethal effects demonstrated at or below the critical dilution. If granted, the monitoring frequency for that test species may be reduced to not less than once per year for the less sensitive species (usually the fathead minnow) and not less than twice per year for the more sensitive test species (usually the Ceriodaphnia dubia).

b. 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 Department will issue a letter of confirmation of the monitoring frequency reduction. A copy of the letter will be forwarded to the Permit Compliance System section to update the permit reporting requirements.

c. SUB-LETHAL FAILURES - If, during the first four quarters of testing, sub-lethal effects are demonstrated to a test species, two monthly retests are required. In addition, quarterly testing is required for that species until the effluent passes both the lethal and sub-lethal test endpoints for the affected species for four consecutive quarters. Monthly retesting is not required if the permittee is performing a TRE.

d. SURVIVAL FAILURES - If any test fails the survival endpoint at any time during the life of this permit, two 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.

e. This monitoring frequency reduction 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.

6. TOXICITY REDUCTION EVALUATION (TRE)

a. Within ninety (90) days of confirming lethality in the retests, 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 TRE Action Plan shall lead to the successful elimination of effluent toxicity at the critical dilution and include 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 (800) 553-6847, 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.).

b. 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.

c. 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 lethality at the critical dilution.

d. The permittee shall submit a Final Report on Toxicity Reduction Evaluation Activities no later than twenty-eight (28) months from confirming lethality 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 lethality at the critical dilution. The report will also provide a specific corrective action schedule for implementing the selected control mechanism.

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).

3. **Storm Water Pollution Prevention Plan Requirements**

If your facility already has a storm water pollution prevention plan (SWPPP) in place, then you shall continue the implementation of this SWPPP. If you do not have a SWPPP, then you shall prepare a SWPPP for your facility within 60 days of the effective starting date of this permit. Your SWPPP must be prepared in accordance with good engineering practices. Your SWPPP must:

i. identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges from your facility;

ii. describe and ensure implementation of practices which you will use to reduce the pollutants in storm water discharges from the facility; and

iii. assure compliance with the terms and conditions of this permit.

b. **Contents of Plan**

i. **Pollution Prevention Team**

You must identify the staff individual(s) (by name or title) that comprise the facility=s storm water Pollution Prevention Team. Your Pollution Prevention Team is responsible for assisting the facility/plant manager in developing, implementing, maintaining and revising the facility=s SWPPP. Responsibilities of each staff individual on the team must be listed.

ii. **Site Description**

Your SWPPP must include the following:

(a) Activities at Facility. Description of the nature of the industrial activity(ies) at your facility;

(b) General Location Map. A general location map (e.g., U.S.G.S. quadrangle, or other map) with enough detail to identify the location of your facility and the receiving waters within one mile of the facility;

(2) A legible site map identifying the following:

(a) directions of storm water flow (e.g., use arrows to show which ways storm water will flow);

(b) locations of all existing structural BMPs

(c) locations of all surface water bodies

(d) locations of potential pollutant sources identified under Part 3.a.iv and where significant materials are exposed to precipitation;

(e) location where major spills or leaks identified under Part 3.a.v have occurred;

(f) locations of the following activities where such activities are exposed to precipitation: fueling stations, vehicle and equipment maintenance and/or cleaning areas, loading/unloading areas, locations used for the treatment, storage or disposal of wastes, and liquid storage tanks;

(g) locations of storm water outfalls and an approximate outline of the area draining to each outfall;

(h) location and description of non-storm water discharges;

(i) locations of the following activities where such activities are exposed to precipitation: processing and storage areas; access roads, rail cars and tracks; the location of transfer of substance in bulk; and machinery;

(j) location and source of runoff from adjacent property containing significant quantities of pollutants of concern to the facility (an evaluation of how the quality of the runoff impacts your storm water discharges may be included).

iii. **Receiving Waters and Wetlands**

You must provide the name of the nearest receiving water(s), including intermittent streams, dry sloughs, arroyos and the areal extent and description of wetland or other Aspecial aquatic sites@ that may receive discharges from your facility.

iv. **Summary of Potential Pollutant Source**

You must identify each separate area at your facility where industrial materials or activities are exposed to storm water. Industrial materials or activities include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products. Material handling activities include the storage, loading unloading, transportation, or conveyance of any raw material, intermediate product, final product or waste product. For each, separate area identified, the description must include:

(1) *Activities in Area.* A list of the activities (e.g., material storage, equipment fueling and cleaning, cutting steel beams); and

(2) *Pollutants.* A list of the associated pollutant(s) or pollutant parameter(s) (e.g., crankcase oil, iron, biochemical oxygen demand, pH, etc.) For each activity. The pollutant list must include all significant materials that have been handled, treated, stored or disposed in a manner to allow exposure to storm water between the time of three (3) years before being covered under this permit and the present.

v. **Spills and Leaks**

(1) You must clearly identify areas where potential spills and leaks, which can contribute pollutants to storm water discharges, can occur, and their accompanying drainage points. For areas that are exposed to precipitation or that otherwise drain to a storm water conveyance at the facility to be covered under this permit, you must provide a list of significant spills and leaks of toxic or hazardous pollutants that occurred during the three (3) year period prior to the starting date of this permit. Your list must be updated if significant spills or leaks occur in exposed areas of your facility during the time you are covered by the permit.

(2) Significant spills and leaks include, but are not limited to releases of oil or hazardous substances in excess of quantities that are reportable under CWA '311 (see 40 CFR 110.10 AND 40 CFR 117.21) or section 102

of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Significant spills may also include releases of oil or hazardous substances that are not in excess of reporting requirements.

vi. **Sampling Data**

You must provide a summary of existing storm water discharge sampling data taken at your facility. All storm water sampling data collected during the term of this permit must also be summarized and included in this part of the SWPPP.

vii. **Storm Water Controls**

(1) *Description of Existing and Planned BMPs.* Describe the type and location of existing non-structural and structural best management practices (BMPs) selected for each of the areas where industrial materials or activities are exposed to storm water. All the areas identified in Part 3.a.ii should have a BMP(s) identified for the area:s discharges. For areas where BMPs are not currently in place, describe appropriate BMPs that you will use to control pollutants in storm water discharges. Selection of BMPs should take into consideration:

(a) the quantity and nature of the pollutants, and their potential to impact the water quality of receiving waters;

(b) opportunities to combine the dual purposes of water quality protection and local flood control benefits (including physical impacts of high flows on streams - e.g., bank erosion, impairment of aquatic habitat, etc.);

(c) opportunities to offset the impact impervious areas of the facility on ground water recharge and base flows in local streams (taking into account the potential for ground water contamination.)

(2) BMP Types to be Considered. The following types of structural, non-structural and other BMPs must be

considered for implementation at your facility. Describe how each is, or will be, implemented. This requirement may have been fulfilled with area-specific BMPs identified under Part 3.a.vii.(1), 11.d..(4)(c), in which case the previous descriptions are sufficient. However, many of the following BMPs may be more generalized or non site-specific and therefore not previously considered. If you determine that any of these BMPs are not appropriate for your facility, you must include an explanation of why they are not appropriate. The BMP examples listed below are not intended to be an exclusive list of BMPs that you may use. You are encourage to keep abreast of new BMPs or new applications of existing BMPs to find the most cost effective means of permit compliance for your facility. If BMPs are being used or planned at the facility which are not listed here (e.g., replacing a chemical with a less toxic alternative, adopting a new or innovative BMP, etc.), include descriptions of them in this section of the SWPPP.

(3) Non-Structural BMPs

(i) Good Housekeeping: You must keep all exposed areas of the facility in a clean, orderly manner where such exposed areas could contribute pollutants to storm water discharges. Common problem areas include: around trash containers, storage areas and loading docks. Measures must also include: a schedule for regular pickup and disposal of garbage and waste materials; routine inspections for leaks and conditions of drums, tanks and containers.

(ii) Minimizing Exposure: Where practicable, industrial materials and activities should be protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt, or runoff.

(iii) Preventive Maintenance: You must have a preventive maintenance program which includes timely inspection and maintenance of storm water management devices, (e.g., cleaning oil/water separators, catch basins)

as well as inspecting, testing, maintaining and repairing facility equipment and systems to avoid breakdowns or failures that may result in discharges of pollutants to surface waters.

(iv) Spill Prevention and Response Procedures: You must describe the procedures which will be followed for cleaning up spills or leaks. Those procedures, and necessary spill response equipment, must be made available to those employees that may cause or detect a spill or leak. Where appropriate, you must explain exiting or planned material handling procedures, storage requirements, secondary containment, and equipment (e.g., diversion valves), which are intended to minimize spills or leaks at the facility. Measures for cleaning up hazardous material spills or leaks must be consistent with applicable RCRA regulations at 40 CFR Part 264 and 40 CFR Part 265.

(a) *Routine Facility Inspections:* In addition to or as part of the comprehensive site evaluation required under Part 3.f, you must have qualified facility personnel inspect all areas of the facility where industrial materials or activities are exposed to storm water. The inspections must include an evaluation of existing storm water BMPs. Your SWPPP must identify how often these inspections will be conducted. You must correct any deficiencies in implementation of your SWPPP you find as soon as practicable, but not later than within 14 days of the inspection. You must document in your SWPPP the results of your inspections and the corrective actions you took in response to any deficiencies or opportunities for improvement that you identify.

(i) Employee Training: You must describe the storm water employee training program for the facility. The description should include the topics to be covered, such as spill response, good housekeeping and material management practices, and must

identify periodic dates (e.g., every 6 months during the months of July and January) for such training. You must provide employee training for all employees that work in areas where industrial materials or activities are exposed to storm water, and for employees that are responsible for implementing activities identified in the SWPPP (e.g., inspectors, maintenance people). The employee training should inform them of the components and goals of your SWPPP.

(4) Structural BMPs

(a) *Sediment and Erosion Control:* You must identify the areas at your facility which, due to topography, land disturbance (e.g., construction), or other factors, have a potential for significant soil erosion. You must describe the structural, vegetative, and/or stabilization BMPs that you will be implementing to limit erosion.

(i) Management of Runoff: You must describe the traditional storm water management practices (permanent structural BMPs other than those which control the generation or source(s) of pollutants) that currently exist or that are planned for your facility. These types of BMPs typically are used to divert, infiltrate, reuse, or otherwise reduce pollutants in storm water discharges from the site. Factors to consider when you are selecting appropriate BMPs should include: 1) the industrial materials and activities that are exposed to storm water, and the associated pollutant potential of those materials activities; and 2) the beneficial and potential detrimental effects on surface water quality, ground water quality, receiving water base flow (dry weather stream flow_, and physical integrity of receiving waters. Structural measures should be placed on upland soils, avoiding wetlands and flood plains, if possible.

Structural BMPs may require a separate permit under section 404 of the CWA before installation begins.

(ii) Example BMPs: BMPs you could use include but are not limited to: storm water detention structures (including wet ponds); storm water retention structures; flow attenuation by use of open vegetated swales and natural depressions; infiltration of runoff onsite; and sequential systems (which combine several practices).

(5) Other Controls

No solid materials, including floatable debris, may be discharged to waters of the United States, except as authorized by a permit issued under section 404 of the CWA. Off-site vehicle tracking of raw, final, or waste materials or sediments, and the generation of dust must be minimized. Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas must be minimized. Velocity dissipation devices must be placed at discharge locations and along the length of any outfall channel to provide a non-erosive flow velocity from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g., no significant changes in the hydrological regime of the receiving water).

c. **Maintenance**

All BMPs you identify in your SWPPP must be maintained in effective operating condition. If site inspections required by Part 3.a.vii.(3)(a) identify BMPs that are not operating effectively, maintenance must be performed before the next anticipated storm event, or as necessary to maintain the continued effectiveness of storm water controls. If maintenance prior to the next anticipated storm event is impracticable, maintenance must be scheduled and accomplished as soon as practicable. In the case of non-structural BMPs, the effectiveness of the BMP must be maintained by appropriate means (e.g., spill response supplies available and personnel trained, etc.)

d. **Non-Storm Water Discharges**

Certification of Non-Storm Water Discharges

Your SWPPP must include a certification that all storm water discharges (i.e., outfalls) have been tested or evaluated for the presence of non-storm water. The certification must be signed in accordance with Part V.I.H of the individual permit, and include:

i. the date of any testing and/or evaluation;
ii. identification of potential significant sources of non-storm water at the site;
iii. a description of the results of any test and/or evaluation for the presence of non-storm water discharges;
iv. a description of the evaluation criteria or testing method used; and
v. a list of the outfalls or onsite drainage points that were directly observed during the test.

If you are unable to provide the certification required (testing for non-storm water discharges), you must notify the Director 180 days after the effective starting date of this permit to be covered by this permit. If the failure to certify is caused by the inability to perform adequate tests or evaluations, such notification must describe:

(1) reason(s) why certification was not possible;
(2) the procedure of any test attempted;
(3) the results of such test or other relevant observations; and
(4) potential sources of non-storm water discharges to the storm sewer.
(5) A copy of the notification must be included in the SWPPP at the facility. Non-storm water discharges to waters of the United States which are not authorized by an NPDES permit are unlawful, and must be terminated.

e. **Allowable Non-storm Water Discharges**

Certain sources of non-storm water are allowable under this permit. In order for these discharges to be allowed, your SWPPP must include:

i. identification of each allowable non-storm water source;

ii. the location where it is likely to be discharged; and

iii. descriptions of appropriate BMPs for each source.

iv. Except for flows from fire fighting activities, you must identify in your SWPPP all sources of allowable non-storm water that are discharged under the authority of this permit.

v. If you include mist blown from cooling towers amongst your allowable non-storm water discharges, you must specifically evaluate the potential for the discharges to be contaminated by chemicals used in the cooling tower and determined that the levels of such chemicals in the discharges would not cause or contribute to a violation of an applicable water quality standard after implementation of the BMPs you have selected to control such discharges.

f. **Applicable State or Local Plans**

Your SWPPP must be consistent (and updated as necessary to remain consistent) with applicable State and/or local storm water, waste disposal, sanitary sewer or septic system regulations to the extent these apply to your facility and are more stringent than the requirements of this permit.

g. **Comprehensive Site Compliance Evaluation**

i. **Frequency and Inspectors**

You must conduct facility inspections at least once a year. The inspections must be done by qualified personnel provided by you. The qualified personnel you use may be either your own employees or outside consultants that you have hired, provided they are knowledgeable and possess the skills to assess conditions at your facility that could impact storm water quality and assess the effectiveness of the BMPs you have chosen to use to control the quality of your storm water discharges. If you decide to conduct more frequent inspections, your SWPPP must specify the frequency of inspections.

ii. **Scope of the Compliance Evaluation**

Your inspections must include all areas where industrial materials or activities are exposed to storm water, as

identified in Part 3.a.iv, and areas where spills and leaks have occurred within the past 3 years. Inspectors should look for: a) industrial materials, residue or trash on the ground that could contaminate or be washed away in storm water; b) leaks or spills from industrial equipment, drums, barrels, tanks or similar containers; c) offsite tracking of industrial materials or sediment where vehicles enter or exit the site; d) tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas and e) for evidence of, or the potential for, pollutants entering the drainage system. Storm water BMPs identified in your SWPPP must be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they must be inspected to see whether BMPs are effective in preventing significant impacts to receiving waters. Where discharge locations are inaccessible, nearby downstream locations must be inspected if possible.

iii. **Follow-up Actions**

Based on the results of the inspections, you must modify your SWPPP as necessary (e.g., show additional controls on map required by Part 3.a.v; revise description of controls required by Part 3.a.vii.(1), 11.d..(4)(c) to include additional or modified BMPs designed to correct problems identified. You must complete revisions to the SWPPP within 14 calendar days following the inspection. If existing BMPs need to be modified or if additional BMPs are necessary, implementation must be completed before the next anticipated storm event. If implementation before the next anticipated storm event is impracticable, they must be implemented as soon as practicable.

iv. **Compliance Evaluation Report**

You must insure a report summarizing the scope of the inspection, name(s) of personnel making the inspection, the date(s) of the inspection, and major observations relating to the implementation of the SWPPP is completed and retained as part of the SWPPP for at least three years from the date permit coverage expires or is terminated. Major observations should include: the location(s) of discharges of pollutants from the site; location(s) of BMPs that need to be maintained; location(s) where additional BMPs are needed that did not exist at the time of inspection. You

must retain a record of actions taken in accordance with Part 2, Section C (Retention of Records) of this permit as part of the storm water pollution prevention plan for at least three years from the date that permit coverage expires or is terminated. The inspection reports must identify any incidents of non-compliance. Where an inspection report does not identify any incidents of non-compliance, the report must contain a certification that the facility is in compliance with the storm water pollution prevention plan and this permit. Both the inspection report and any reports of follow-up actions must be signed in accordance with Part 2, Section D (Reporting Requirements) of this permit.

v. **Credit As a Routine Facility Inspection**

Where compliance evaluation schedules overlap with inspections required under Part 3.a.vii.(3)(a), your annual compliance evaluation may also be used as one of the Part 3.a.vii.(3)(a), routine inspections.

h. **Maintaining Updated SWPPP**

You must amend the storm water pollution prevention plan whenever:

i. there is a change in design, construction, operation, or maintenance at your facility which has a significant effect on the discharge, or potential for discharge, of pollutants from your facility;

ii. during inspections or investigations by you or by local, State, Tribal or Federal officials it is determined the SWPPP is ineffective in eliminating or significantly minimizing pollutants from sources identified under Part 3.a.iv, or is otherwise not achieving the general objectives of controlling pollutants in discharges from your facility.

i. **Signature, plan Review and Making Plans Available**

You must sign your SWPPP in accordance with Part 2, Section D.11, and retain the plan on-site at the facility covered by this permit (see Part 2, Section C.7 for records retention requirements).

i. You must keep a copy of the SWPPP on-site or locally available to the Director for review at the time of an on-site inspection. You must make your SWPPP available upon request to the Director, a State, Tribal or local agency approving storm water management plans, or the operator of a municipal separate storm sewer receiving discharge from the site. Also, in the interest of public involvement, EPA encourages you to make your SWPPPs available to the public for viewing during normal business hours.

ii. The Director may notify you at any time that your SWPPP does not meet one or more of the minimum requirements of this permit. The notification will identify provisions of this permit which are not being met, as well as the required modifications. Within thirty (30) calendar days of receipt of such notification, you must make the required changes to the SWPPP and submit to the Director a written certification that the requested changes have been made.

j. **Additional Requirements for Storm Water Discharges Associated With Industrial Activity From Facilities Subject to EPCRA Section 313 Reporting Requirements.**

Potential pollutant sources for 313 water priority chemicals for which you have reporting requirements under EPCRA 313 must be identified in your summary of potential pollutant sources as per Part 3.a.iv. Note this additional requirement only applies to you if you are subject to reporting requirements under EPCRA 313.

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 permittee has certified zinc hydrosulfite is not used in the bleaching process. Any anticipated use of zinc hydrosufite will require notification to ADEQ as specified in 40 CFR 122.61(a).

6. **Dioxin monitoring requirements:**

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

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

7. 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
2,3,4,6-Tetrachlorophenol	1653
Pentachlorophenol	1653
Chloroform	624
AOX	1650

8. **Specific Conditions Related to Best Management Practices Conditions**

Within 30 days after permit issuance, the Permittee shall submit a report indicating compliance with items having deadlines prior to permit issuance in accordance with 40 CFR 430.

The Permittee shall make the BMP Plan available at the facility for inspection by a representative of the ADEQ.

The Permittee shall annually 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.

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

9. **Permit Conditions for Accepting City of Crossett wastewater**

Georgia-Pacific and the City of Crossett will enter into and maintain an agreement for the discharge of the City=s treated effluent into G-P=s wastewater treatment system. The agreement will state that the City will have a Pretreatment Program meeting applicable parts of 40 CFR 403, and the agreement will establish treatment standards for BOD_5 and TSS for the City=s treated effluent that are submitted to and approved by the ADEQ. The agreement will also 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 will stipulate that monitoring records of the City=s flow, BOD_5 and TSS will be maintained by the city for a minimum of three years to ascertain compliance with the Agreement.

10. **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 SMS 002 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 annually to the ADEQ upon completion of sampling and analysis.

d. **Test Frequency**:

Testing shall be done annually. If two consecutive years of testing yield average results for each year less than 5.33 ppt of 2378 TCDD for the Outfall station only, the frequency of monitoring may be reduced to once every three years or until a new permit is reissued.

e. **Method of Analysis:**

Edible fish fillets samples shall be analyzed and reported for 2378 TCDD. The method of analysis shall be in accordance with the latest approved procedure of Method 1613.

11. **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.

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 regulation No. 2, as amended, (regulation establishing water quality standards for surface waters of the State of Arkansas.)
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. 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. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the sampling day. "Daily discharge" 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.
7. **"Daily Average"** (**also known as monthly average**) discharge limitations means the highest allowable average of "daily discharges(s)" over a calendar month, calculated as the sum of all "daily discharges(s)" measured during a calendar month divided by the number of "daily discharges(s)" measured during that month. When the permit establishes daily average concentration effluent limitations or conditions, the daily

average concentration means the arithmetic average (weighted by flow) of all “daily discharges(s)” of concentration determined during the calendar month where C= daily concentration, F=daily flow and n=number of daily samples; daily average discharge

$$\frac{C1F1 + C2F2 + \ldots CnFn}{F1 + F2 \ldots + Fn}$$

For Fecal Coliform Bacteria (FCB) report the monthly average as a 30-day geometric mean in colonies per 100 ml.

8. **“Daily Maximum”** discharge limitation means the highest allowable “daily discharge” during the calendar month. The 7-day average for fecal coliform bacteria is the geometric mean of the values of all effluent samples collected during the calendar week in colonies/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 403, introducing pollutants to a publicly-owned treatment works.

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 a publicly-owned treatment works. Sewage as used in this definition means any wastes, including wastes from humans, households, commercial establishments, industries, and storm water runoff that are discharged to or otherwise enter a publicly-owned treatment works.

18. **“7-day average”** discharge limitation, other than for fecal coliform bacteria, is the highest allowable arithmetic means of the values for all effluent samples collected during the calendar week. The 7-day average for

fecal coliform bacteria is the geometric mean of the values of all effluent samples collected during the calendar week in colonies/100 ml. The DMR 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, 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 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. The daily sampling intervals shall include the highest flow periods.

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.

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.

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 or preventive maintenance, or careless of improper operations.

26.**"Fecal Coliform Bacteria"**, 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"**, shall be defined as follows:

a. When limited in the permit as a monthly 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 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 part per million.

33.**The term "s.u."** shall mean standard units.

34**. 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 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 Discharge Monitoring report 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 does not coincide with the fixed calendar quarter Seasonal calendar quarters 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.

FINAL Fact Sheet

for renewal of NPDES Permit Number AR0001210 to discharge to Waters of the State

1. **PERMITTING AUTHORITY.**

The issuing office is:

Arkansas Department of Environmental Quality
8001 National Drive
Post Office Box 8913
Little Rock, Arkansas 72219-8913

2. **APPLICANT.**

The applicant is:

Georgia-Pacific Corporation
d/b/a Georgia-Pacific Crossett Paper Operations
P. O. Box 3333
Crossett, AR 71653

3. **PERMIT WRITER.**

The permit writer is:

Morteza(Mo) Shafii
NPDES Branch, Water Division

4. **PREVIOUS PERMIT ACTIVITY.**

Effective Date: 11/01/1986
Modification Date: 10/30/1991
Expiration Date: 10/31/1991

The permittee has submitted a permit renewal application on 2/2/1998 and 6/25/2001. It is proposed that the current NPDES permit be reissued for a 5-year term in accordance with regulations promulgated at 40 CFR Part 122.46(a).

5. 303d List and Endangered Species Considerations

A. 303d List

The receiving stream is not listed on the 303d list. Therefore no permit action is needed.

B. Endangered Species:

No comments were received from the U.S. Fish and Wildlife Service (USF&WS). Therefore no permit action is needed. The drafted permit and Fact Sheet will be sent to the USF&WS for their review.

6. RECEIVING STREAM SEGMENT AND DISCHARGE LOCATION.

The outfall is located at the following coordinates:

Outfall 001:Latitude : 33E 06' 45"; Longitude: 92E 02' 17"
SMS 002:Latitude : 33E 02' 00"; Longitude: 92E 04' 24"
Outfall 101:Latitude : 33E 02' 00"; Longitude: 92E 04' 24"
Outfall 102:Latitude : 33E 02' 00"; Longitude: 92E 04' 24"
Outfall 103:Latitude : 33E 02' 00"; Longitude: 92E 04' 24"

The receiving waters named:

Outfall 001: Mossy Lake, then into Coffee Creek, then into Ouachita River in Segment 2D of the Ouachita River Basin. SMS 002: Downstream Mossy Lake prior to Coffee Creek then into Ouachita River in Segment 2D of the Ouachita River Basin. The receiving stream is a Water of the State classified for raw water source for public, industrial, and agricultural water supplies, propagation of desirable species of fish and other aquatic life, and other compatible uses.

7. OUTFALL AND TREATMENT PROCESS DESCRIPTION.

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

a. Flow Outfall 001: 45 MGD

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

c. Discharge Description: process wastewater(Paper Mill operations), sanitary wastewater, landfill leachate, site stormwater, chemical plant, building products, City of Crossett, truck wash and backwash wastewater

A quantitative and qualitative description of the discharge described in the NPDES Permit Application Forms received 2/2/1998 and 6/25/2001 are available for review.

8. **APPLICANT ACTIVITY.**

The applicant's activities are the operation of a paper mill.

9. S**LUDGE PRACTICES.**

Sludge generated by this facility is disposed of by permitted landfill(Permit No. 292-S3N). Additionally, sludge is mechanically de-watered. Dewatered sludge is combined with ash, sand, and grit and used as fill material for sludge pond closure.

10. **PERMIT CONDITIONS.**

The Arkansas Department of Environmental Quality has made a tentative determination to issue a permit for the discharge described in the application. Permit requirements are based on NPDES 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. **Final Effluent Limits**

Outfall 001-process wastewater(Paper Mill operations), sanitary wastewater, landfill leachate, site stormwater, chemical plant, building products, City of Crossett, truck wash and backwash wastewater

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

Effluent Characteristic	**Discharge Limitations**	
	Mass (lbs/day)	Other Units (Specify)

	Monthly Avg	Daily Max	Monthly Avg	Daily Max
Flow (MGD)	N/A	N/A	N/A	N/A
Biochemical Oxygen Demand (BOD5)	26310	50617	70 mg/l	135 mg/l
Total Suspended Solids (TSS)	37720	70188	134 mg/l	249 mg/l
Adsorbable Organic Halogens(AOX)	2145.8	3275.53	N/A	N/A
2,3,7,8-TCDD	Report	Report	Report pg/l	Report pg/l
Chronic Biomonitoring	N/A	N/A	See Page 18, #11.f below	
			Minimum	Maximum
pH	N/A	N/A	6.0 s.u.	9.0 s.u.

ii. **Solids and Foam**: 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.

b. **Final Effluent Limits**

SMS 002-Stream Monitoring Station Downstream of Mossy Lake prior to Coffee Creek

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

Effluent Characteristic	**Discharge Limitations**			
	Mass (lbs/day)		Other Units (Specify)	
	Monthly Avg	Daily Max	Monthly Avg	Daily Max
Flow (MGD)	N/A	N/A	N/A	N/A
Biochemical Oxygen Demand (BOD5)				
October-July	8000	12000	Report mg/l	Report mg/l
August	7262	10893	Report mg/l	Report mg/l
September	5911	8867	Report mg/l	Report mg/l
Total Suspended Solids (TSS)	18000	30000	Report mg/l	Report mg/l
			Minimum	Maximum
pH	N/A	N/A	6.0 s.u.	9.0 s.u.

ii. **Solids and Foam**: 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.

c. **Internal Effluent Limits**

Outfall 101 (Internal outfall)-Line 1A of Hardwood

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

Effluent Characteristic	**Discharge Limitations**			
	Mass (lbs/day)		Other Units (Specify)	
	Monthly Avg	Daily Max	Monthly Avg	Daily Max

Flow (MGD)	N/A	N/A	N/A	N/A
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	N/A	N/A	N/A	<10 pg/l
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	N/A	N/A	N/A	31.9 pg/l
Chloroform	4.69	7.87	N/A	N/A
Trichlorosyringol	N/A	N/A	N/A	<2.5 ug/l
3,4,5-Trichlorocatechol	N/A	N/A	N/A	<5.0 ug/l
3,4,6-Trichlorocatechol	N/A	N/A	N/A	<5.0 ug/l
3,4,5-Trichloroguaiacol	N/A	N/A	N/A	<2.5 ug/l
3,4,6-Trichloroguaiacol	N/A	N/A	N/A	<2.5 ug/l
4,5,6-Trichloroguaiacol	N/A	N/A	N/A	<2.5 ug/l
2,4,5-Trichlorophenol	N/A	N/A	N/A	<2.5 ug/l
2,4,6-Trichlorophenol	N/A	N/A	N/A	<2.5 ug/l
Tetrachlorocatechol	N/A	N/A	N/A	<5.0 ug/l
Tetrachloroguaiacol	N/A	N/A	N/A	<5.0 ug/l
2,3,4,6-Tetrachlorophenol	N/A	N/A	N/A	<2.5 ug/l
Pentachlorophenol	N/A	N/A	N/A	<5.0 ug/l

d. **Internal Effluent Limits**

Outfall 102 (Internal outfall)-Line 1B of Hardwood

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

Effluent Characteristic	**Discharge Limitations**			
	Mass (lbs/day)		Other Units (Specify)	
	Monthly Avg	Daily Max	Monthly Avg	Daily Max
Flow (MGD)	N/A	N/A	N/A	N/A
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	N/A	N/A	N/A	<10 pg/l
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	N/A	N/A	N/A	31.9 pg/l
Chloroform	4.51	7.57	N/A	N/A
Trichlorosyringol	N/A	N/A	N/A	<2.5 ug/l
3,4,5-Trichlorocatechol	N/A	N/A	N/A	<5.0 ug/l
3,4,6-Trichlorocatechol	N/A	N/A	N/A	<5.0 ug/l
3,4,5-Trichloroguaiacol	N/A	N/A	N/A	<2.5 ug/l
3,4,6-Trichloroguaiacol	N/A	N/A	N/A	<2.5 ug/l
4,5,6-Trichloroguaiacol	N/A	N/A	N/A	<2.5 ug/l
2,4,5-Trichlorophenol	N/A	N/A	N/A	<2.5 ug/l
2,4,6-Trichlorophenol	N/A	N/A	N/A	<2.5 ug/l
Tetrachlorocatechol	N/A	N/A	N/A	<5.0 ug/l
Tetrachloroguaiacol	N/A	N/A	N/A	<5.0 ug/l
2,3,4,6-Tetrachlorophenol	N/A	N/A	N/A	<2.5 ug/l
Pentachlorophenol	N/A	N/A	N/A	<5.0 ug/l

e. **Internal Effluent Limits**

Outfall 103 (Internal outfall)-Line 2 of Softwood

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

Effluent Characteristic	**Discharge Limitations**			
	Mass (lbs/day)		Other Units (Specify)	
	Monthly Avg	Daily Max	Monthly Avg	Daily Max
Flow (MGD)	N/A	N/A	N/A	N/A
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	N/A	N/A	N/A	<10 pg/l
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	N/A	N/A	N/A	31.9 pg/l
Chloroform	5.02	8.4	N/A	N/A
Trichlorosyringol	N/A	N/A	N/A	<2.5 ug/l
3,4,5-Trichlorocatechol	N/A	N/A	N/A	<5.0 ug/l
3,4,6-Trichlorocatechol	N/A	N/A	N/A	<5.0 ug/l
3,4,5-Trichloroguaiacol	N/A	N/A	N/A	<2.5 ug/l
3,4,6-Trichloroguaiacol	N/A	N/A	N/A	<2.5 ug/l
4,5,6-Trichloroguaiacol	N/A	N/A	N/A	<2.5 ug/l
2,4,5-Trichlorophenol	N/A	N/A	N/A	<2.5 ug/l
2,4,6-Trichlorophenol	N/A	N/A	N/A	<2.5 ug/l
Tetrachlorocatechol	N/A	N/A	N/A	<5.0 ug/l
Tetrachloroguaiacol	N/A	N/A	N/A	<5.0 ug/l
2,3,4,6-Tetrachlorophenol	N/A	N/A	N/A	<2.5 ug/l
Pentachlorophenol	N/A	N/A	N/A	<5.0 ug/l

11. **BASIS FOR PERMIT CONDITIONS**.

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

a. **Technology-Based versus Water Quality-Based Effluent Limitations and Conditions**

Following regulations promulgated at 40 CFR Part 122.44 (1) (2) (ii), the draft 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.

b. **Technology-Based Effluent Limitations and/or Conditions**

i. **General Comments**

Regulations promulgated at 40 CFR Part 122.44 (a) require technology-based effluent limitations to be placed in NPDES permits based on effluent limitations guidelines where applicable, on Best Professional

Judgment (BPJ) in the absence of guidelines, or on a combination of the two.

ii. **Applicable Effluent Limitations Guidelines or Best Professional Judgment of the Permit Writer**

Discharges from facilities of this type are covered by Federal effluent limitations guidelines promulgated under 40 CFR Part 430- The Pulp, Paper, And paperboard Point Source Category.

iii. **Process wastewater (Outfall 001)**

According to the permit renewal application, GP produces **653** tons per day of fine paper (Step 1) and **1347** 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 **653** 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	6-9 S.U. at all times	

Average Daily Production (1000 lbs/day)= 1306
((653 tons/day) X (2000 lbs/ton)) / 1000 = 1306

Monthly Average

Parameter	Production (Klbs/day)	X	EG Factor (lbs/Klbs)	BPT Limit lbs/day
BOD5	1306	X	5.5	7183
TSS	1306	X	11.9	15541.4

Daily Maximum

Parameter	Production (Klbs/day)	X	EG Factor (lbs/Klbs)	BPT Limit lbs/day
BOD5	1306	X	10.6	13843.6
TSS	1306	X	22.15	28927.9

Step 2:

Effluent limitations based on production of **1347** 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	6-9 S.U. at all times	

Average Daily Production (1000 lbs/day)= 2694
0 ((1347 tons/day) X (2000 lbs/ton)) / 1000 = 2694

Monthly Average

Parameter	Production (Klbs/day)	X	EG Factor (lbs/Klbs)	BPT Limit lbs/day
BOD5	2694	X	7.1	19127.4
TSS	2694	X	12.9	34752.6

Daily Maximum

Parameter	Production (Klbs/day)	X	EG Factor (lbs/Klbs)	BPT Limit lbs/day
BOD5	2694	X	13.65	36773.1
TSS	2694	X	24	64656.0

Step 3 = Step 1 + Step 2

Parameter	Monthly Average	Daily Maximum
BOD5	26310	50617
TSS	50294	93584

After reviewing the comments from concerned citizens in regard to TSS limits, after conversation with the permittee, permittee agreed TSS limits at outfall 001 be reduced to 37720 lbs/day (monthly Average) and 70188 lbs/day (Daily Maximum. However; concentration limits for TSS are based on above calculated technology limits.

AOX

The Adsorbable Organic Halogen (AOX) limits were calculated based on the annual **unbleached** pulp production (1722 tons/day) and effluent guidelines representing the application of the Best Available Technology economically achievable (BAT)(40 CAR Part 430.24). The Permittee has reported unbleached pulp production as 618256 tons per 359 days. Based on 40 CFR 430.24(b)(1), AOX limits must determine at the end of the pipe. Therefore, production of 1722 tons/day has been used to calculate AOX limits as follows:

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

Calculations

Average Daily Production (1000 lbs/day) = 3444[1]

[1] ((1722 ADT/day) x (2000 lbs/ton)) / 1000 = 3444

Monthly Average

Parameter	Production x ELG Factor (1000 lbs/day)	x	(lbs/1000lbs)	BAT Limit lb/day
AOX	3444	x	0.632	2146

Daily Max

Parameter	Production x ELG Factor (1000 lbs/day)	x	(lbs/1000lbs)	BAT Limit lb/day
AOX	3444	x	0.951	3276

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

The permittee has certified that no chlorophenolic-containing biocides are used. Therefore, BAT limits pursuant to 40 CFR 430.24(d) are not included.

Dioxin

The technology based limits for Dioxin in the internal outfalls are more stringent than Current Dioxin technology (BPJ) permit limits in outfall 001. Therefore, Dioxin limits at outfall 001 have been changed to monitor and report. This change will not violate anti-back sliding based on 40 CFR 122.44(l)(2)(i)(B)(1).

SMS 002

BOD5 limits are based on Water Quality Management Plan(See below). After reviewing the comments from concerned citizens in regard to TSS limits and after conversation with the permittee, the permittee agreed that TSS limits at outfall SMS 002 to be reduced to 18,000 lbs/day (monthly average) and 30,000 lbs/day (Daily Maximum).

Outfalls 101, 102, and 103 (Internal Outfalls)

Effluent Limitations Guidelines were promulgated for the pulp and paper industry (see 40 CFR 430.24). Those guidelines establish a more stringent technology basis for Best Available Technology based limitations than the former guidelines and are included in the proposed permit. New technology based limitations are established in the proposed permit for the following parameters: 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD), 2,3,7,8-tetrachlorodibenzofuran (TCDF), chloroform, trichlorosyringol, 3,4,5-trichlorocatechol, 3,4,6-trichlorocatechol, 3,4,5-trichloroguaiacol, 3,4,6-trichloroguaiacol, 4,5,6-trichloroguaiacol, 2,4,5-trichlorophenol, 2,4,6-trichlorophenol, tetrachlorocatechol, tetrachloroguaiacol, 2,3,4,6-tetrachlorophenol, pentachlorophenol, and adsorbable organic halides (AOX). The new guidelines require all of the new pollutants except AOX to be limited at the discharge from the **bleach plant**. In accordance with those guidelines, monitoring and limits are proposed to be established at three new internal outfalls. Internal outfall 101 for line 1A of Hardwood bleach plant, internal outfall 102 for line 1B of Hardwood bleach plant, and internal outfall 103 for softwood bleach plant. The monitoring frequency at the internal outfalls is proposed to be once per month which is consistent with the guidelines (40 CFR 430.02). Additionally, chloroform limits were calculated based on the annual unbleached pulp production (1115.33 tons/day for hardwood and 606.84 for softwood) and Effluent guidelines representing the application of the Best Available Technology economically achievable (BAT)(40 CAR Part 430.24). In order to derive production based limits for Chloroform at line 1A of hardwood bleach plant(Outfall 101) and line 1B of hardwood bleach plant(Outfall 102) the production (1115.33 tons/day) was divided based on the effluent flow rate from each of those plants. 51% was allocated to the outfall 101 and 49% was allocated to the outfall 102. See below for calculations:

40 CAR 430.24, BAT Effluent Limitations		
Pollutant	**Daily Max g/kkg (lbs/1000000lbs)**	**Monthly Average G/kkg(lbs/1000000 lbs)**
Chloroform	6.92	4.14

Calculations

Hardwood:(Outfalls 101 and 102)

Average Daily Production (1000000 lbs/day) = 2.231[1]
[1] ((1115.33 ADT/day) x (2000 lbs/ton)) / 1000000 = 2.231

Monthly Average

Parameter	Production x ELG Factor			BAT Limit
	(1000000 lbs/day)	x	(lbs/1000000lbs)	lb/day
Chloroform	2.231	x	4.14	9.2

Outfall 101 = (51% X 9.2) = 4.69 lbs/day
Outfall 102 = (49% X 9.2) = 4.51 lbs/day

Daily Max

Parameter	Production x ELG Factor			BAT Limit
	(1000000 lbs/day)	x	(lbs/1000000lbs)	lb/day
Chloroform	2.231	x	6.92	15.44

Outfall 101 = (51% X 15.44) = 7.87 lbs/day
Outfall 102 = (49% X 15.44) = 7.57 lbs/day

Softwood: (Outfall 103)

Average Daily Production (1000000 lbs/day) = 1.21[1]
[1] ((606.84 tons/day x (2000 lbs/ton)) / 1000000 = 1.213

Monthly Average

Parameter	Production x ELG Factor			BAT Limit
	(1000000 lbs/day)	x	(lbs/1000000lbs)	lb/day
Chloroform	1.213	x	4.14	5.02

Daily Max

Parameter	Production x ELG Factor (1000000 lbs/day)	x	(lbs/1000000lbs)	BAT Limit lb/day
Chloroform	1.213	x	6.92	8.40

c. **State Water Quality Numerical Standards Based Limitations**

i. **Conventional and Non-Conventional Pollutants**

Outfall 001

pH limits are based on Regulation No. 2 Section 2.504.

SMS 002

BOD5 limits as stated in the permit on page 2 of Part IA are based on the model which was done by the permittee and approved by EPA and ADEQ on 5/27/2002. The loading limits apply **when Mossy Lake is not flooded**; otherwise permittee must comply with BOD5 limits at outfall 001. pH limits are based on Regulation No. 2 Section 2.504.

d. **Toxics Pollutants-Priority Pollutant Scan (PPS)**

(1) **General Comments**

Effluent limitations and/or conditions established in the draft permit are in compliance with the Arkansas Water Quality Standards and the applicable Water Quality Management Plan.

(2) **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.

(3) **Implementation**

The State of Arkansas is currently implementing EPA's Post Third-Round Policy in conformance with the EPA Regional strategy. The 5-year NPDES 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 NPDES permits. State narrative and numerical water quality standards from the 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.

(4) **Priority Pollutant Scan**

In accordance with the regional policy ADEQ has reviewed and evaluated the effluent analysis submitted by the permittee on 2/2/1998 and 6/25/2001. The following steps were used 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.

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 following expression was used to calculate the pollutant instream waste concentration(IWC):

$$IWC = ((C_e \times Q_e) + (C_b \times Q_b))/(Q_e + Q_b)$$

where:

IWC = instream concentration of pollutant after mixing with receiving stream (Fg/l)
C_e = pollutant concentration in effluent (Fg/l)
Q_e = effluent flow of facility (cfs)
C_b = background concentration of pollutant in receiving stream (Fg/l)
Q_b = background flow of receiving stream (cfs)

The following values were used in the IWC calculations:

C_e = varies with pollutant. A single value from the Priority Pollutant Screen (PPS) submitted by the permittee as part of the NPDES permit application or the geometric mean of a group of data points(less than 20 data points) is multiplied by a factor of 2.13. This factor is based on EPA's Region VI procedure (See attachment IV of Continuing Planning Process(CPP)) to extrapolate limited data sets to better evaluate the potential toxicity for higher effluent concentrations to exceed water quality standards. This procedure employs a statistical approach which yields an estimate of a selected upper percentile value(the 95th percentile) of an effluent data set which would be expected to exceed 95% of effluent concentrations in a discharge. If 20 or more data points during the last two years are available, do not multiply by 2.13, but instead use the maximum reported values.

Q_e = 45 MGD = 69.53 cfs

C_b = 0 µg/l

Q_b = (See below):

(i) <u>Aquatic Toxicity</u>

Chronic Toxicity: Flow = 300 cfs, for comparison with chronic aquatic toxicity. This flow is **25** percent of the 7-day, 10-year low-flow (7Q10) for the receiving stream. The 7Q10 of 1200 cfs is based on model "Identification and Classification of Perennial Stream of Arkansas", Arkansas Geological Commission Map.

Acute Toxicity: Flow = 156 cfs, for comparison with acute aquatic toxicity. This flow is **13** percent of the 7Q10 for the receiving stream.

(ii) Bioaccumulation

Flow = 5106.9 cfs, for comparison with bioaccumulation criteria. This flow is the long term average (LTA) of the receiving stream which is based on EPA's STORET (Storage and retrieval), Water Quality Data Base System, utilizing ADEQ accumulated data for Station OUA08.

(iii) Drinking Water

Flow = 1200 cfs, for comparison with drinking water criteria. This flow is the 7Q10 for the receiving stream.

The following values were used to determine limits for the pollutants:

Hardness = 31 mg/l, based on attachment VI of CPP.

pH = 6.9 s.u., based on compliance data from EPA's STORET (Storage and retrieval), Water Quality Data Base System, utilizing ADEQ accumulated data for Station OUA08.

(5) **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.

(6) **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 NPDES permits be expressed as total recoverable (See Pages 1 and 6 of **Attachment 1**). 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 **Attachment 2** and Region 6 Implementation Guidance for Arkansas Water Quality Standards promulgated at 40 CFR 131.36.

(7) **Results of the comparison of the submitted information with the appropriate water quality standards and criteria**

ADEQ has determined from the information submitted by the permittee that no water quality standards or Gold Book criteria are exceeded. Therefore, no permit action is necessary to maintain these standards or criteria (See **Attachment 1**.)

e. **Final Limitations**

The following effluent limitations or "report" requirements were placed in the permit based on the more stringent of the technology-based, water quality-based or previous NPDES permit limitations:

Parameter	Water Quality-Based		Technology-Based/BPJ		Previous NPDES 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 Mass (lbs/day)	N/A N/A	N/A N/A	70 26310	135 50617	Report 19370	Report 37240	70 26310	135 50617
TSS Concentration Mass (Lbs/day) Mass (lbs/day) BPJ limits	N/A N/A	N/A N/A	134 50294 37720	249 93584 70188	Report 35190	Report 65470	134 37720	249 70188
2,3,7,8-TCDD	N/A	N/A	Report	Report	35 pg/l	35 pg/l	Report Pg/l	Report pg/l
AOX Concentration Mass (lbs/day)	N/A N/A	N/A N/A	N/A 2146	N/A 3276	N/A N/A	N/A N/A	N/A 2146	N/A 3276
PH	6-9 s.u.		6-9 s.u.		6-9 s.u.		6-9 s.u.	
SMS 002								
BOD5(Oct-July) Concentration Mass(lbs/day)	N/A 8000	N/A 12000	N/A N/A	N/A N/A	N/A 8000	N/A 12000	N/A 8000	N/A 12000
BOD5(August) Concentration Mass (lbs/day)	N/A 7262	N/A 10893	N/A N/A	N/A N/A	N/A 8000	N/A 12000	N/A 7262	N/A 10893
BOD5(Sept) Concentration Mass (lbs/day)	N/A	N/A 8867	N/A N/A	N/A N/A	N/A 8000	N/A 12000	N/A 5911	N/A 8867

	5911							
TSS(lbs/day)	N/A	N/A	50294	93584	16000	24000	18000	30000
pH	6-9 s.u		6-9 s.u		6-9 s.u		6-9 s.u	
Internal Outfalls 101, 102,103	N/A	N/A	N/A	40 CFR 430.24	N/A	N/A	N/A	40 CFR 430.24

f. **Biomonitoring**

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 biomonitoring 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. Biomonitoring of the effluent is thereby required as a condition of this permit to assess potential toxicity. The biomonitoring procedures stipulated as a condition of this permit are as follows:

TOXICITY TESTS	**FREQUENCY**
Chronic Biomonitoring	Once/quarter

Requirements for measurement frequency are based on appendix D of CPP.

The calculations for dilution used for chronic biomonitoring are as follows for mossy lake by using jet mix model:

CD = [(2.8 X D X 3.14^0.5)/ y] X 100

D = Diameter of discharge pipe = 4 ft and y = 25 for ZID
CD = [(2.8 X 4 X 3.14^0.5)/25] X 100 = **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 **Attachment I** of CPP). The low-flow effluent concentration (critical dilution) is defined as **80%** effluent. The requirement for chronic biomonitoring 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 biomonitoring 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 and the permittee shall retain the report unless requested by the Department. Only the results of each valid toxicity test are submitted on the DMR.

This permit may be reopened to require further biomonitoring studies, Toxicity Reduction Evaluation (TRE) and/or effluent limits if biomonitoring 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).

g. **Sample Type and Sampling Frequency**

Regulations promulgated at 40 CFR 122.44(i)(l) require permit to establish monitoring requirements which assure compliance with permit limitations. Requirements for sample type and sampling frequency for BOD5 and TSS were based on recommended frequencies for self-monitoring of discharges flow of >10 MGD. Sampling frequency for Dioxin has been based on the current permit. The monitoring frequency at the internal outfalls is proposed to be once per month which is consistent with the guidelines (40 CFR 430.02). Sample frequency for chronic biomonitoring is based on Continuing Planning Process, 2000, Appendix D,III. E. 2. b. Sample frequency for BOD5, TSS, and pH at outfalls 001 and SMS 002 has been changed to three/week based on compliance history of the last two years and EPA Interim Guidance for Performance-Based Reductions of NPDES Monitoring Frequencies. This guidance actually supports a decrease of twice/week. However, based on the permit writer judegment, the previous frquencies for BOD5, TSS, and pH will continue.

h. **Changes from the previously issued permit**

1. Part III has been revised.
2. Outfalls coordinates are included.
3. BOD5 and TSS limits at outfall 001 and SMS 002 and AOX and Dioxin limits at outfall 001 have been changed.
4. Internal Outfalls 101, 102, and 103 are included.
5. Requirements for BOD5 at SMS 002 (Outfall 002 of previous permit) have been deleted from Part III.
6. Monitoring requirements for biomonitoring, BOD5, TSS, pH, and AOX have been changed.
7. Revised biomonitoring language requirements have been included.
8. Storm Water Pollution Prevention Plan requirements are included.
9. Schedule of compliance has been deleted.
10. Footnotes have been changed.

12. **SCHEDULE OF COMPLIANCE.**

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

Compliance is required on the effective date of the permit.

13. **OPERATION AND MONITORING.**

The applicant is at all times required to properly operate and maintain the treatment facility; to monitor the discharge on a

regular basis; and report the results monthly. The monitoring results will be available to the public.

14. **SOURCES.**

The following sources were used to draft the permit:

a. NPDES application No. AR0001210 received 2/2/1998 and 6/25/2001.
b. Arkansas Water Quality Management Plan(WQMP).
c. Regulation No. 2.
d. Regulation No. 6.
e. 40 CFR 122, 125,430.
f. NPDES permit file AR0001210.
g. Discharge Monitoring Reports (DMRs).
h. "Arkansas Water Quality Inventory Report 2000 (305B)", ADEQ.
i. "Identification and Classification of Perennial Streams of Arkansas", Arkansas Geological Commission.
j. EPA's STORET (Storage and Retrieval), Water Quality Data Base System.
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 131.36.
n. Meeting between EPA, ADEQ and permittee.
o. Public meeting and hearing comments

15. **NPDES POINT OF CONTACT.**

For additional information, contact:

Mo Shafii
Arkansas Department of Environmental Quality
8001 National Drive
Post Office Box 8913
Little Rock, Arkansas 72219-8913
Telephone: (501) 682-0622