Permit Number: AR0002968
AFIN: 41-00002

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

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

The applicant's mailing address and physical location is:

Domtar A.W. LLC - Ashdown Mill
285 Hwy. 71 South
Ashdown, AR 71822

is authorized to discharge process wastewater, sanitary wastewater, cooling water, and contaminated stormwater runoff from a facility located as follows: approximately 18 miles north of Texarkana on the left side of Hwy. 71/59 at 285 Hwy. 71 South in Little River County, Arkansas.

Latitude: 33° 38' 33.92" N ; Longitude: 94° 06' 16.82" W

to receiving waters named:

through manually operated gates to a combination of underground piping and an open canal that proceeds 3.3 miles south to the Red River in Segment 1B of the Red River Basin.

The outfall is located at the following coordinates:

Outfall 001: Latitude: 33° 37' 12.6" N; Longitude: 94° 05' 59.3" W

Discharge shall be in accordance with effluent limitations, monitoring requirements, and other conditions set forth in this permit. Per Part III.D.10, the permittee must re-apply on or before 180 days prior to the expiration of the permit for permit coverage past the expiration date.

Effective Date: June 1, 2021
Expiration Date: May 31, 2026

Digitally signed by Alan J. York
DN: cn=Alan J. York, o, ou, email=alan.york@adeq.state.ar.us, c=US
Date: 2021.04.26 16:38:45 -05'00'

Alan J. York
Associate Director, Office of Water Quality
Arkansas Department of Energy and Environment
Division of Environmental Quality

04/26/2021
Issue Date

PART I
PERMIT REQUIREMENTS

SECTION A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: OUTFALL 001 - process wastewater, sanitary wastewater, cooling water, and contaminated stormwater runoff.

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

Effluent Characteristics		**Discharge Limitations**				**Monitoring Requirements**	
		Mass (lbs/day, unless otherwise specified)		Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
		Monthly Avg.	Daily Max	Monthly Avg.	Daily Max		
Flow		N/A	N/A	Report, MGD	Report, MGD	continuous	totalizing meter
Biochemical Oxygen Demand (BOD_5) (year-round)		37,566.9	72,230.1	Report	Report	three/week	grab
Biochemical Oxygen Demand (BOD_5) (lbs BOD5 per cfs of receiving stream) [1]							
August	T ≥ 29°C	N/A	N/A	N/A	7.6 lbs/cfs	three/week	calculate
	27°C ≤ T ≤ 28.9°C	N/A	N/A	N/A	11.4 lbs/cfs	three/week	calculate
	T ≤ 26.9°C	N/A	N/A	N/A	16.0 lbs/cfs	three/week	calculate
September	T ≥ 27°C	N/A	N/A	N/A	7.3 lbs/cfs	three/week	calculate
	24°C ≤ T ≤ 26.9°C	N/A	N/A	N/A	9.9 lbs/cfs	three/week	calculate
	T ≤ 23.9°C	N/A	N/A	N/A	14.7 lbs/cfs	three/week	calculate
October	T > 20°C	N/A	N/A	N/A	15.8 lbs/cfs	three/week	calculate
	T ≤ 20°C	N/A	N/A	N/A	20.0 lbs/cfs	three/week	calculate
Total Suspended Solids (TSS)		78,577.2	145,924.2	Report	Report	once/week	grab
Adsorbable Organic Halogens (AOX)[2]		3,491.3	5,329.4	Report	Report	once/two months	grab
Sulfates (SO_4)		Report	Report	Report	Report	once/quarter	grab
Total Dissolved Solids (TDS)		Report	Report	Report	Report	once/quarter	grab
Fecal Coliform Bacteria (FCB)				colonies/100 ml			
(May – September)		N/A	N/A	200	400	twice/5 months	grab
(October – April)		N/A	N/A	1000	2000	twice/7 months	grab
Total Recoverable Arsenic[6]		N/A	N/A	Report, µg/l	Report, µg/l	once/quarter[5]	grab
pH		N/A	N/A	Minimum 6.0 s.u.	Maximum 9.0 s.u.	once/week	grab
Chronic WET Testing[3]							

Effluent Characteristics	Discharge Limitations				Monitoring Requirements	
	Mass (lbs/day, unless otherwise specified)		Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Avg.	Daily Max	Monthly Avg.	Daily Max		
Pimephales promelas (Chronic)[3]			7-Day Minimum			
Pass/Fail Lethality (7-day NOEC) TLP6C			Report (Pass=0/Fail=1)		once/quarter	composite
Pass/Fail Growth (7-day NOEC) TGP6C			Report (Pass=0/Fail=1)		once/quarter	composite
Survival (7-day NOEC) TOP6C			Report %		once/quarter	composite
Coefficient of Variation (Growth) TQP6C			Report %		once/quarter	composite
Growth (7-day NOEC) TPP6C			Report %		once/quarter	composite
Pass/Fail Retest 1 (7-day NOEC) 22418			Report (Pass=0/Fail=1)		once/month[4]	composite
Pass/Fail Retest 2 (7-day NOEC) 22419			Report (Pass=0/Fail=1)		once/month[4]	composite
Pass/Fail Retest 3 (7-day NOEC) 51444			Report (Pass=0/Fail=1)		once/month[4]	composite
Ceriodaphnia dubia (Chronic)[3]	N/A		7-Day Minimum			
Pass/Fail Lethality (7-day NOEC) TLP3B			Report (Pass=0/Fail=1)		once/quarter	composite
Pass/Fail Reproduction (7-day NOEC) TGP3B			Report (Pass=0/Fail=1)		once/quarter	composite
Survival (7-day NOEC) TOP3B			Report %		once/quarter	composite
Coefficient of Variation (Reproduction) TQP3B			Report %		once/quarter	composite
Reproduction (7-day NOEC) TPP3B			Report %		once/quarter	composite
Pass/Fail Retest 1 (7-day NOEC) 22415			Report (Pass=0/Fail=1)		once/month[4]	composite
Pass/Fail Retest 2 (7-day NOEC) 22416			Report (Pass=0/Fail=1)		once/month[4]	composite
Pass/Fail Retest 3 (7-day NOEC) 51443			Report (Pass=0/Fail=1)		once/month[4]	composite

1 See Condition Nos. 10, 11, and 12 of Part II (Monitoring of stream flow and temperature & discharge summary report).
2 See Condition Nos. 8 and 13 of Part II (AOX monitoring requirements and test methods).
3 See Condition No. 4 of Part II (WET Testing).
4 CONDITIONAL REPORTING: Use only if conducting retests due to a test failure (demonstration of significant toxic effects at or below the critical dilution). If testing on a quarterly basis, the permittee may substitute one of the retests in lieu of one routine toxicity test. If retests are not required, Report NODI=9 (Conditional Monitoring - Not Required This Period) under retest parameters. (reported on a quarterly DMR) This condition applies to *P. promelas* and *C. dubia*.
5 Monitoring and reporting for Total Recoverable Arsenic is only required for the first four calendar quarters of the permit term.
6 See Condition No. 22 of Part II (Metals condition).
7 Compliance with the NH_3-N limits is required three years from the effective date of the permit. In the interim, the permittee must monitor and report the levels of NH_3-N in the effluent.

There shall be no discharge of distinctly visible solids, scum, or foam of a persistent nature, nor shall there be any formation of slime, bottom deposits, or sludge banks. There shall be no visible sheen as defined in Part IV of this permit.

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge during the entire monitoring period. Samples shall be taken after the final treatment unit in the effluent ditch at the parshall flume just downstream of the release gates.

PART I
PERMIT REQUIREMENTS

SECTION A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: INTERNAL OUTFALL 01A – Line No. 1A (hardwood) Bleach Plant Effluent.

During the period beginning on the effective date and lasting until the date of expiration, the permittee is authorized to discharge from Outfall 01A. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics	**Discharge Limitations**				**Monitoring Requirements**	
	Mass (lbs/day, unless otherwise specified)		Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Avg.	Daily Max	Monthly Avg.	Daily Max		
Flow[2]	N/A	N/A	Report, MGD	Report, MGD	daily	calculate
2,3,7,8-TCDD[1, 4]	N/A	N/A	N/A	< 10.0 pg/l	once/quarter	composite
2,3,7,8-TCDF[1]	N/A	N/A	N/A	31.9 pg/l	once/quarter	composite
Trichlorosyringol[1]	N/A	N/A	N/A	< 2.5 µg/l	once/quarter	composite
3,4,5-Trichlorocatechol[1]	N/A	N/A	N/A	< 5.0 µg/l	once/quarter	composite
3,4,6-Trichlorocatechol[1]	N/A	N/A	N/A	< 5.0 µg/l	once/quarter	composite
3,4,5-Trichloroguaiacol[1]	N/A	N/A	N/A	< 2.5 µg/l	once/quarter	composite
3,4,6-Trichloroguaiacol[1]	N/A	N/A	N/A	< 2.5 µg/l	once/quarter	composite
4,5,6-Trichloroguaiacol[1]	N/A	N/A	N/A	< 2.5 µg/l	once/quarter	composite
2,4,5-Trichlorophenol[1]	N/A	N/A	N/A	< 2.5 µg/l	once/quarter	composite
2,4,6-Trichlorophenol[1]	N/A	N/A	N/A	< 2.5 µg/l	once/quarter	composite
Tetrachlorocatechol[1]	N/A	N/A	N/A	< 5.0 µg/l	once/quarter	composite
Tetrachloroguaiacol[1]	N/A	N/A	N/A	< 5.0 µg/l	once/quarter	composite
2,3,4,6-Tetrachlorophenol[1]	N/A	N/A	N/A	< 2.5 µg/l	once/quarter	composite
Pentachlorophenol[1]	N/A	N/A	N/A	<5.0 µg/l	once/quarter	composite
Chloroform[1, 3]	6.4	10.8	N/A	N/A	See Part II, Condition No. 19.	

BLEACH PLANT EFFLUENT SAMPLING AND REPORTING IS TO BE A FLOW-PROPORTIONAL COMBINATION OF THE SEPARATE ACID AND ALKALINE SEWERS. SEE CONDITION NOS. 14, 15, AND 16 OF PART II.

1 See Condition No. 13 of Part II. (Required test methods)
2 See Condition No. 15 of Part II. (Internal outfall flow calculations)
3 Limits listed are for the flow proportioned combination of acid and alkaline lines.
4 See Condition No. 6 (2,3,7,8-TCDD Requirements).

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): internal outfall 01A, at both the acid and the alkaline sewers separately, closest to where the bleach plant wastewater is discharged from the process equipment and prior to comingling with other waste streams.

PART I
PERMIT REQUIREMENTS

SECTION A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: INTERNAL OUTFALL 01B - Line No. 1B (softwood) Bleach Plant Effluent

During the period beginning on the effective date and lasting until the date of expiration, the permittee is authorized to discharge from Outfall 01B. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics	**Discharge Limitations**				**Monitoring Requirements**	
	Mass (lbs/day, unless otherwise specified)		Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Avg.	Daily Max	Monthly Avg.	Daily Max		
Flow[2]	N/A	N/A	Report, MGD	Report, MGD	daily	calculate
2,3,7,8-TCDD[1, 4]	N/A	N/A	N/A	< 10.0 pg/l	once/quarter	composite
2,3,7,8-TCDF[1]	N/A	N/A	N/A	31.9 pg/l	once/quarter	composite
Trichlorosyringol[1]	N/A	N/A	N/A	< 2.5 µg/l	once/quarter	composite
3,4,5-Trichlorocatechol[1]	N/A	N/A	N/A	< 5.0 µg/l	once/quarter	composite
3,4,6-Trichlorocatechol[1]	N/A	N/A	N/A	< 5.0 µg/l	once/quarter	composite
3,4,5-Trichloroguaiacol[1]	N/A	N/A	N/A	< 2.5 µg/l	once/quarter	composite
3,4,6-Trichloroguaiacol[1]	N/A	N/A	N/A	< 2.5 µg/l	once/quarter	composite
4,5,6-Trichloroguaiacol[1]	N/A	N/A	N/A	< 2.5 µg/l	once/quarter	composite
2,4,5-Trichlorophenol[1]	N/A	N/A	N/A	< 2.5 µg/l	once/quarter	composite
2,4,6-Trichlorophenol[1]	N/A	N/A	N/A	< 2.5 µg/l	once/quarter	composite
Tetrachlorocatechol[1]	N/A	N/A	N/A	< 5.0 µg/l	once/quarter	composite
Tetrachloroguaiacol[1]	N/A	N/A	N/A	< 5.0 µg/l	once/quarter	composite
2,3,4,6-Tetrachlorophenol[1]	N/A	N/A	N/A	< 2.5 µg/l	once/quarter	composite
Pentachlorophenol[1]	N/A	N/A	N/A	<5.0 µg/l	once/quarter	composite
Chloroform[1, 3]	6.7	11.2	N/A	N/A	See Part II, Condition No. 19.	

BLEACH PLANT EFFLUENT SAMPLING AND REPORTING IS TO BE A FLOW-PROPORTIONAL COMBINATION OF THE SEPARATE ACID AND ALKALINE SEWERS. SEE CONDITION NOS. 14, 15, AND 16 OF PART II.

1 See Condition No. 13 of Part II. (Required test methods)
2 See Condition No. 15 of Part II. (Internal outfall flow calculations)
3 Limits listed are for the flow proportioned combination of acid and alkaline lines.
4 See Condition No. 6 (2,3,7,8-TCDD Requirements).

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): internal outfall 01B, at both the acid and the alkaline sewers separately, closest to where the bleach plant wastewater is discharged from the process equipment and prior to comingling with other waste streams.

PART I
PERMIT REQUIREMENTS

SECTION A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS: INTERNAL OUTFALL 01C - Line No. 2 (softwood) Bleach Plant Effluent

During the period beginning on the effective date and lasting until the date of expiration, the permittee is authorized to discharge from Outfall 01C. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics	**Discharge Limitations**				**Monitoring Requirements**	
	Mass (lbs/day, unless otherwise specified)		Concentration (mg/l, unless otherwise specified)		Frequency	Sample Type
	Monthly Avg.	Daily Max	Monthly Avg.	Daily Max		
Flow[2]	N/A	N/A	Report, MGD	Report, MGD	daily	calculate
2,3,7,8-TCDD[1, 4]	N/A	N/A	N/A	< 10.0 pg/l	once/quarter	composite
2,3,7,8-TCDF[1]	N/A	N/A	N/A	31.9 pg/l	once/quarter	composite
Trichlorosyringol[1]	N/A	N/A	N/A	< 2.5 µg/l	once/quarter	composite
3,4,5-Trichlorocatechol[1]	N/A	N/A	N/A	< 5.0 µg/l	once/quarter	composite
3,4,6-Trichlorocatechol[1]	N/A	N/A	N/A	< 5.0 µg/l	once/quarter	composite
3,4,5-Trichloroguaiacol[1]	N/A	N/A	N/A	< 2.5 µg/l	once/quarter	composite
3,4,6-Trichloroguaiacol[1]	N/A	N/A	N/A	< 2.5 µg/l	once/quarter	composite
4,5,6-Trichloroguaiacol[1]	N/A	N/A	N/A	< 2.5 µg/l	once/quarter	composite
2,4,5-Trichlorophenol[1]	N/A	N/A	N/A	< 2.5 µg/l	once/quarter	composite
2,4,6-Trichlorophenol[1]	N/A	N/A	N/A	< 2.5 µg/l	once/quarter	composite
Tetrachlorocatechol[1]	N/A	N/A	N/A	< 5.0 µg/l	once/quarter	composite
Tetrachloroguaiacol[1]	N/A	N/A	N/A	< 5.0 µg/l	once/quarter	composite
2,3,4,6-Tetrachlorophenol[1]	N/A	N/A	N/A	< 2.5 µg/l	once/quarter	composite
Pentachlorophenol[1]	N/A	N/A	N/A	<5.0 µg/l	once/quarter	composite
Chloroform[1, 3]	10.0	16.8	N/A	N/A	See Part II, Condition No. 19.	

BLEACH PLANT EFFLUENT SAMPLING AND REPORTING IS TO BE A FLOW-PROPORTIONAL COMBINATION OF THE SEPARATE ACID AND ALKALINE SEWERS. SEE CONDITION NOS. 14, 15, AND 16 OF PART II.

1 See Condition No. 13 of Part III. (Required test methods)
2 See Condition No. 15 of Part III. (Internal outfall flow calculations)
3 Limits listed are for the flow proportioned combination of acid and alkaline lines.
4 See Condition No. 6 (2,3,7,8-TCDD Requirements).

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): internal outfall 01C, at both the acid and the alkaline sewers separately, closest to where the bleach plant wastewater is discharged from the process equipment and prior to comingling with other waste streams.

SECTION B. PERMIT COMPLIANCE SCHEDULE

1. Within 75 days of the effective date of the permit, the permittee must conduct all testing required by EPA Form 2C that is not already required by this NPDES permit. The results of the testing must be submitted to the Division within 90 days of the effective date of the permit.

2. Within 60 days of the effective date of the permit, the permittee must submit a Notice of Intent (NOI) and all required attachments for coverage under the general permit for stormwater runoff associated with industrial activity (ARR000000). This coverage is necessary for any stormwater associated with industrial activity that is not discharged through Outfall 001. Until such coverage is issued, the permittee must comply with their SWPPP which must meet the requirements of the previous permit (prior to submittal of the application) or the requirements of ARR000000 (after submittal of the NOI).

PART II
OTHER CONDITIONS

1. The operator of this wastewater treatment facility shall hold at least a Basic Industrial license from the State of Arkansas in accordance with Act 1103 of 1991, Act 556 of 1993, Act 211 of 1971, and Rule 3, as amended.

2. In accordance with 40 CFR Parts 122.62 (a)(2) and 124.5, this permit may be reopened for modification or revocation and/or reissuance to require additional monitoring and/or effluent limitations when new information is received that actual or potential exceedance of State water quality criteria and/or narrative criteria are determined to be the result of the permittee's discharge(s) to a relevant water body or a Total Maximum Daily Load (TMDL) is established or revised for the water body that was not available at the time of the permit issuance that would have justified the application of different permit conditions at the time of permit issuance.

3. Other Specified Monitoring Requirements

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

   - The monitoring and analytical instruments are consistent with accepted scientific practices;
   - The requests shall be submitted in writing to the Permits Section of the Office of Water Quality of the DEQ for use of the alternate method or instrument.
   - The method and/or instrument is in compliance with 40 CFR Part 136 or approved in accordance with 40 CFR Part 136.5; and
   - All associated devices are installed, calibrated, and maintained to insure the accuracy of the measurements and are consistent with the accepted capability of that type of device. The calibration and maintenance shall be performed as part of the permittee's laboratory Quality Control/Quality Assurance program.

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

4. WHOLE EFFLUENT TOXICITY TESTING (7-DAY CHRONIC NOEC FRESHWATER)

A. SCOPE AND METHODOLOGY

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

APPLICABLE TO FINAL OUTFALL: 001

REPORTED ON DMR AS FINAL OUTFALL: 001

CRITICAL DILUTION (%): 22%

EFFLUENT DILUTION SERIES (%): 9%, 12%, 17%, 22%, & 29%

TESTING FREQUENCY: once/quarter

COMPOSITE SAMPLE TYPE: Defined at PART I

TEST SPECIES/METHODS: 40 CFR Part 136

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

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

ii. The NOEC (No Observed Effect Concentration) is herein defined as the greatest effluent dilution at and below which toxicity (lethal or sub-lethal) that is statistically different from the control (0% effluent) at the 95% confidence level does not occur. Chronic lethal test failure is defined as a demonstration of a statistically significant lethal effect at test completion to a test species at or below the critical dilution. Chronic sub-lethal test failure is defined as a demonstration of a statistically significant sub-lethal effect (i.e., growth or reproduction) at test completion to a test species at or below the critical dilution.

iii. 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.

B. PERSISTENT LETHAL and/or SUB-LETHAL EFFECTS

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

If a frequency reduction, as specified in Item F, has been granted and any valid test demonstrates significant lethal or sub-lethal effects to a test species at or below the critical dilution, the frequency of testing for that species is automatically increased to once per quarter for the life of the permit. In addition:

i. Part I Testing Frequency Other Than Monthly

a. The permittee shall conduct a total of three (3) retests for any species that demonstrates significant toxic effects at or below the critical dilution. The retests shall be conducted monthly during the next three consecutive months. If testing on a quarterly basis, the permittee may substitute one of the retests in lieu of one scheduled toxicity test. A full report shall be prepared for each test required by this section in accordance with procedures outlined in Item D of this section and submitted with the period discharge monitoring report (DMR) to the permitting authority for review.

b. IF LETHAL EFFECTS HAVE BEEN DEMONSTRATED If any of the retests demonstrates significant lethal effects at or below the critical dilution, the permittee shall initiate Toxicity Reduction Evaluation (TRE) requirements as specified in Item E of this section. The permittee shall notify DEQ 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 also be required due to a demonstration of intermittent lethal effects at or below the critical dilution, or for failure to perform the required retests. A TRE required based on lethal effects should consider any sub-lethal effects as well.

c. IF SUB-LETHAL EFFECTS ONLY HAVE BEEN DEMONSTRATED If any two of the three retests demonstrates significant sub-lethal effects at 75% effluent or lower, the permittee shall initiate the Sub-Lethal Toxicity Reduction Evaluation (TRE_{SL}) requirements as specified in Item E of this section. The permittee shall notify DEQ in writing within 5 days of the failure of any retest, and the Sub-Lethal Effects TRE initiation date will be the test completion date of the first failed retest. A TRE may also be required for failure to perform the required retests.

d. The provisions of Item B.i.a are suspended upon submittal of the TRE Action Plan.

C. REQUIRED TOXICITY TESTING CONDITIONS

i. 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:

a. The toxicity test control (0% effluent) must have survival equal to or greater than 80%.

b. The mean number of Ceriodaphnia dubia neonates produced per surviving female in the control (0% effluent) must be 15 or more.

c. 60% of the surviving control females must produce three broods.

d. 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.

e. 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.

f. The percent coefficient of variation between replicates shall be 40% or less in the critical dilution, unless significant lethal or sub-lethal effects are exhibited for: the young of surviving females in the Ceriodaphnia dubia reproduction test; the growth and survival endpoints of the Fathead minnow test.

g. If a test passes, yet the percent coefficient of variation between replicates is greater than 40% in the control (0% effluent) and/or in the critical dilution for: the young of surviving females in the Ceriodaphnia dubia reproduction test; the growth and survival endpoints of the Fathead minnow test, the test is determined to be invalid. A repeat test shall be conducted within the required reporting period of any test determined to be invalid.

h. If a test fails, test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%.

i. A Percent Minimum Significant Difference (PMSD) range of 13 - 47 for Ceriodaphnia dubia reproduction;

j. A PMSD range of 12 - 30 for Fathead minnow growth.

ii. Statistical Interpretation

a. For the Ceriodaphnia dubia survival test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be Fisher's Exact Test as described in EPA/821/R-02-013 or the most recent update thereof.

b. For the Ceriodaphnia dubia reproduction test and the Fathead minnow larval survival and growth test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be in accordance with the methods for determining the No Observed Effect Concentration (NOEC) as described in EPA/821/R-02-013 or the most recent update thereof.

c. If the conditions of Test Acceptability are met in Item C.i above and the percent survival of the test organism is equal to or greater than 80% in the critical dilution concentration and all lower dilution concentrations, the test shall be considered to be a passing test, and the permittee shall report a survival NOEC of not less than the critical dilution for the DMR reporting requirements found in Item D below.

iii. Dilution Water

a. 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;

(1) toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and

(2) toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.

b. If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of Item C.i), 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:

(1) a synthetic dilution water control which fulfills the test acceptance requirements of Item C.i was run concurrently with the receiving water control;

(2) the test indicating receiving water toxicity has been carried out to completion (i.e., 7 days);

(3) the permittee includes all test results indicating receiving water toxicity with the full report and information required by Item D below; and

(4) 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.

iv. Samples and Composites

a. The permittee shall collect a minimum of three flow-weighted composite samples from the outfall(s) listed at Item A.i above. Unless otherwise stated in this section, a composite sample for WET shall consist of a minimum of 12 subsamples gathered at equal time intervals during a 24-hour period.

b. The permittee shall collect second and third composite samples for use during 24-hour renewals of each dilution concentration for each test. The permittee must collect the composite samples such that the effluent samples, on use, are representative of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on a regular or intermittent basis.

c. The permittee must collect all three flow-weighted composite samples within the monitoring period. Second and/or third composite samples shall not be collected into the next monitoring period; such tests will be determined to not meet either reporting period requirements. Monitoring period definitions are listed in Part IV.

d. 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 between 0 and 6 degrees Centigrade during collection, shipping, and/or storage.

e. If the flow from the outfall(s) being tested ceases during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions and the sample holding time are waived during that sampling period. However, the permittee must have collected an effluent composite sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The effluent composite sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report required in Item D of this section.

f. 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 A.i. above for the day the sample was collected. The permittee shall perform the toxicity test on the flow-weighted composite of the outfall samples.

g. If chlorination is part of the treatment process, 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.

D. REPORTING

i. The permittee shall prepare a full report of the results of all tests conducted pursuant to this section in accordance with the Report Preparation Section of EPA/821/R-02-013, or the most current publication, for every valid or invalid toxicity test initiated whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of PART III.C.7 of this permit. The permittee shall submit full reports. For any test or retest which fails, is considered invalid or which is terminated early for any reason, the full report must be submitted for agency review.

ii. A valid test for each species must be reported on the DMR during each reporting period specified in PART I of this permit. The full reports for all valid tests, invalid tests, repeat tests (for invalid tests), and retests (for tests previously failed) performed during the reporting period must be attached to the DMR for Agency review.

iii. The permittee shall submit the results of each valid toxicity test and retest on the subsequent DMR for that reporting period in accordance with PART III.D.4 of this permit, as follows below. Only results of valid tests are to be reported on the DMR.

a. Pimephales promelas (Fathead minnow)

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

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

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

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

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

(6) If conducting retests due to a test failure (demonstration of significant toxic effects at or below the critical dilution):

(A) Consecutive Monthly Retest 1: If the NOEC (lowest lethal or sub-lethal) for *P. promelas* is less than the critical dilution, enter a '1'; otherwise, enter a '0' under Parameter No. 22418 (reported on quarterly DMR);

(B) Consecutive Monthly Retest 2: If the NOEC (lowest lethal or sub-lethal) for *P. promelas* is less than the critical dilution, enter a '1'; otherwise, enter a '0' under Parameter No. 22419 (reported on quarterly DMR);

(C) Consecutive Monthly Retest 3: If the NOEC (lowest lethal or sub-lethal) for *P. promelas* is less than the critical dilution, enter a '1'; otherwise, enter a '0' under Parameter No. 51444 (reported on quarterly DMR);

(D) If testing on a quarterly basis, the permittee may substitute one of the retests in lieu of one scheduled toxicity test;

(E) If retests are not required, Report NODI=9 (Conditional Monitoring - Not Required This Period) under Parameter Nos. 22418, 22419, 51444 (reported on quarterly DMR)

b. Ceriodaphnia dubia

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

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

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

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

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

(6) If conducting retests due to a test failure (demonstration of significant toxic effects at or below the critical dilution):

(A) Consecutive Monthly Retest 1: If the NOEC (lowest lethal or sub-lethal) for *C. dubia* is less than the critical dilution, enter a '1'; otherwise, enter a '0' under Parameter No. 22415 (reported on quarterly DMR);

(B) Consecutive Monthly Retest 2: If the NOEC (lowest lethal or sub-lethal) for *C. dubia* is less than the critical dilution, enter a '1'; otherwise, enter a '0' under Parameter No. 22416 (reported on quarterly DMR);

(C) Consecutive Monthly Retest 3: If the NOEC (lowest lethal or sub-lethal) for *C. dubia* is less than the critical dilution, enter a '1'; otherwise, enter a '0' under Parameter No. 51443 (reported on quarterly DMR);

(D) If testing on a quarterly basis, the permittee may substitute one of the retests in lieu of one scheduled toxicity test;

(E) If retests are not required, Report NODI=9 (Conditional Monitoring - Not Required This Period) under Parameter Nos. 22415, 22416, and 51443 (reported on quarterly DMR)

E. TOXICITY REDUCTION EVALUATIONS (TREs)

TREs for lethal and sub-lethal effects are performed in a very similar manner. EPA Region 6 is currently addressing TREs as follows: a sub-lethal TRE (TRE_{SL}) is triggered based on three sub-lethal test failures while a lethal effects TRE (TRE_{L}) is triggered based on only two test failures for lethality. In addition, EPA Region 6 will consider the magnitude of toxicity and use flexibility when considering a TRE_{SL} where there are no effects at effluent dilutions of 75% or lower.

i. Within ninety (90) days of confirming toxicity, as outlined above, the permittee shall submit a Toxicity Reduction Evaluation (TRE) Action Plan and Schedule for conducting a TRE. The TRE Action Plan shall specify the approach and methodology to be used in performing the TRE. A Toxicity Reduction Evaluation is an investigation intended to determine those actions necessary to achieve compliance with water quality-based effluent limits by reducing an effluent's toxicity to an acceptable level. A TRE is defined as a step-wise process which combines toxicity testing and analyses of the physical and chemical characteristics of a toxic effluent to identify the constituents causing effluent toxicity and/or treatment methods which will reduce the effluent toxicity. The goal of the TRE is to maximally reduce the toxic effects of effluent at the critical dilution and includes the following:

a. Specific Activities. The plan shall detail the specific approach the permittee intends to utilize in conducting the TRE. The approach may include toxicity characterizations, identifications and confirmation activities, source evaluation, treatability studies, or alternative approaches. When the permittee conducts Toxicity Characterization Procedures the permittee shall perform multiple characterizations and follow the procedures specified in the documents 'Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures' (EPA-600/6-91/003) and 'Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I' (EPA-600/6-91/005F), or alternate procedures. When the permittee conducts Toxicity Identification

Evaluations and Confirmations, the permittee shall perform multiple identifications and follow the methods specified in the documents 'Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity' (EPA/600/R-92/080) and 'Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity' (EPA/600/R-92/081), as appropriate.

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

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

b. 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;

c. 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;

d. Quality Assurance Plan (e.g., QA/QC implementation, corrective actions, etc.); and

e. Project Organization (e.g., project staff, project manager, consulting services, etc.).

ii. 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.

iii. 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:

1. any data and/or substantiating documentation which identifies the pollutant(s) and/or source(s) of effluent toxicity;

2. any studies/evaluations and results on the treatability of the facility's effluent toxicity; and

3. any data which identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant toxicity at the critical dilution.

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

v. 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).

F. MONITORING FREQUENCY REDUCTION

i. The permittee may apply for a testing frequency reduction upon the successful completion of the first four consecutive quarters or first twelve consecutive months (in accordance with Item A.i.) of the current permit term 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*).

ii. CERTIFICATION - The permittee must certify in writing that no test failures have occurred and that all tests meet all test acceptability criteria in Item C.i. above. In addition the permittee must provide a list with each test performed including test initiation date, species, NOECs for lethal and sub-lethal effects and the maximum coefficient of variation for the controls. Upon review and acceptance of this information the agency will issue a letter of confirmation of the monitoring frequency reduction. A copy of the letter will be forwarded to the agency’s Permit Compliance System section to update the permit reporting requirements.

iii. SUB-LETHAL OR SURVIVAL FAILURES - If any test fails the lethal or sub-lethal endpoint at any time during the life of this permit, three consecutive monthly retests are required and the monitoring frequency for the affected test species may be

increased to once per quarter until the permit is re-issued. Monthly retesting is not required if the permittee is performing a TRE.

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

5. Best Management Practices (BMPs), as defined in Part IV.6, must be implemented for the facility to prevent or reduce the pollution of waters of the State from stormwater runoff, spills or leaks, and/or waste disposal. The permittee must amend the BMPs whenever there is a change in the facility or a change in the operation of the facility. (This condition is applicable to the stormwater from areas not covered by Condition No. 18 of this Part.)

6. **Dioxin Effluent Monitoring Requirements:** The method of analysis of 2,3,7,8-tetrachloro-dibenzo-p-dioxin (2,3,7,8-TCDD) shall be in accordance with the analytical protocol in either U.S. Environmental Protection Agency Method 1613: Tetra - Octa - Chlorinated Dioxins and Furans by Isotope Dilution, July 1989, or National Council for Air and Stream Improvement (NCASI Method 551). The "minimum level" for either method shall be 10.0 parts per quadrillion (ppq). The minimum level is defined as the level at which the entire analytical system shall give recognizable mass spectra and acceptable calibration points. If testing indicates levels of concentration less than the required MQL, then the concentration of dioxin should be reported as "0".

7. **Chlorophenolic - Containing Biocides:** The permittee has certified that no chlorophenolic-containing biocides are currently used. Any anticipated use of these biocides will require notification of DEQ as specified in 40 CFR 122.41(l).

8. **AOX Effluent Monitoring Requirements:** The method of analysis of the final effluent for Adsorbable Organic Halogens (AOX) shall be conducted in accordance with a test method approved be DEQ (i.e., Standard Methods, 18th Edition, Method 5320B or EPA Method 1650).

9. **Fish Tissue Analysis:** The permittee shall continue to assess the levels of 2,3,7,8-tetrachloro-dibenzo-p-dioxin (2378-TCDD) in ambient fish tissues in the receiving stream.

   a. Stations (2):

      - Within one mile above or below Highway 41 crossing of Red River.

      - Between Domtar outfall and one mile below Highway 71 bridge.

   b. Species and size of fish to collect:

      - Buffalo fish

         -Three individuals not less than 5 pounds each, or

-Five individuals not less than 3 pounds each;

- Blue Catfish

-Three individuals not less than 10 pounds each, or
-Five individuals not less than 5 pounds each;

c. Sampling Time: Sampling is allowed at any time during the year. Monitoring results obtained during the previous calendar year shall be summarized and reported no later than the 1st of the following March.

d. Test Frequency: Testing shall be done once during every five-year period. The next test must take place at least two years after the most recent test.

e. The method of analysis: Edible fish fillet samples shall be analyzed and reported for 2378-TCDD. The method of analysis for fish tissue samples shall be in accordance with the analytical protocol in either U.S. Environmental Protection Agency Method 1613: Tetra - Octa- Chlorinated Dioxins and Furans by Isotope Stream Improvement (NCASI) method described in Technical Bulletin No. 551 (NCASI Method 551).

10. **RECEIVING STREAM MONITORING REQUIREMENTS (Flow):** For the months of August through October, the permittee shall maintain records of daily flow of the receiving stream (Red River) to document compliance with the requirements herein. Daily flow monitoring shall be USGS monitoring station data (USGS Station No. 07337000, Red River at Index). The flow used to calculate daily allowable BOD_5 discharge will be the flow measured at the Index monitoring station minus the effluent discharge flow. The permit requires the permittee to divide each day's reported pounds of BOD_5 discharged by that day's reported stream flow (cfs). The permittee is required only to test the BOD_5 levels three times per week. Therefore the permittee is required, at a minimum, to obtain the daily flow of the Red River only three times per week (i.e., the days on which the effluent is sampled for BOD_5) to calculate the pounds of BOD_5 in the effluent per cfs of the Red River.

11. **RECEIVING STREAM MONITORING REQUIREMENTS (Temperature)**: For the months of August through October, the permittee shall maintain records of daily temperature of the receiving stream to document compliance with the requirements herein. The temperature shall be measured at the Index monitoring station. The permittee is required only to test the BOD_5 levels three times per week. Therefore the permittee is required, at a minimum, to obtain the daily temperature of the Red River only three times per week (i.e., the days on which the effluent is sampled for BOD_5) to determine the allowable pounds of BOD_5 in the effluent per cfs of the Red River.

12. **DISCHARGE SUMMARY REPORT**

For the three months period of August, September and October, the permittee shall prepare a summary of the Outfall 001 Biochemical Oxygen Demand (BOD_5) discharges. The summary shall be in tabular form and include the following information:

a. Date.
b. Red River Flow recorded at the Index monitoring station.
c. Red River temperature recorded at the Index monitoring station.
d. Effluent flow.
e. Measured BOD_5 concentration.
f. Monitored BOD_5 load.
g. Calculated allowable BOD_5 load.

The permittee shall submit this summary with the monthly netDMRs and also maintain this information on-site and reasonably accessible to EPA and State officials upon request.

13. The following EPA Methods must be utilized when testing bleach plant effluent as specified for Internal Outfalls 01A, 01B, and 01C.

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
3,4,5-Trichloroguaiacol	1653
3,4,6-Trichloroguaiacol	1653
4,5,6-Trichloroguaiacol	1653
2,4,5-Trichlorophenol	1653
2,4,6-Trichlorophenol	1653
Tetrachlorocatechol	1653
Tetrachloroguaiacol	1653
2,3,4,6-Tetrachlorophenol	1653
Pentachlorophenol	1653
Chloroform	624
AOX	1650

* Reference 40 CFR 430.01 (i)

14. **Bleach Plant Effluent Sampling:** Sampling of the bleach plant effluent shall be performed for both the acid and alkaline sewers separately, at the point closest to where bleach plant wastewater is discharged from the process equipment. Compliance with the effluent limitations will be demonstrated by collecting and analyzing separate samples of the acid and alkaline discharges. The mass discharges to be reported will be calculated based on the flow and concentration of each separate sewer.

15. **Internal Outfall Flow Calculations:** Flow calculations are to be made by combining the flows of both the acid and alkaline sewers of each bleach plant line using flow data found in Condition No. 16.

16. **Flow-Proportioned Calculation Requirements:** Flow-proportion calculations are to be made for the two hardwood lines and one softwood line using the following flow balance inputs:

Line No.1A (Softwood)

Acid Sewer

Water Source (D Stage)	Flow Determination	GPM
ClO_2 to D0 tower	Metered Flow	record
H_2SO_4 flow	Metered Flow	record
Water to D0-bottom shower	Design Maximum	875
Water to DO hydrodoctor	Design Maximum	200
Fresh water to repulper	Design Flow	50
Condensate from steam	Design Maximum	35
Condensate from steam (D1-stage)	Design Maximum	19.3
ClO_2 to D1 tower	Metered Flow	record
Water to D1 hydrodoctor	Design Flow	200
ClO_2 to D2 tower	Metered Flow	record
Water to D2 bottom shower	Metered Flow	record
Mill water to D2 top shower	Metered Flow	record
Water to hydrodoctor	Design Flow	200
D1 NaOH	Metered Flow	record

Alkaline Sewer

Caustic Extraction(E Stage)	Flow Determination	GPM
Caustic to EOP tower	Metered Flow	record
Water to EOP bottom shower	Metered Flow	record
Water to hydrodoctor	Design Maximum	200
Repulper dilution water	Design Maximum	174
Condensate from steam	Design Maximum	35
Peroxide to Eo	Metered Flow	Record

Line No.1B (Softwood)

Acid Sewer

Water Source(D Stage)	Flow Determination	GPM
ClO_2 to D0 tower	Metered Flow	record
H_2SO_4 flow	Metered Flow	record
Water to D0-bottom shower	Design Maximum	878
Water to DO hydrodoctor	Design Maximum	200
Fresh water to repulper	Design Flow	50
Condensate from steam	Design Maximum	35
Condensate from steam(D1-stage)	Design Maximum	19.3
ClO_2 to D1 tower	Metered Flow	record
Water to D1 hydrodoctor	Design Flow	200
ClO_2 to D2 tower	Metered Flow	record
Water to D2 bottom shower	Metered Flow	record
Mill water to D2 top shower	Metered Flow	record
Water to D2 hydrodoctor	Design Flow	200

Alkaline Sewer

Caustic Extraction(E Stage)	Flow Determination	GPM
Caustic to EOP tower	Metered Flow	record
Peroxide to EOP	Metered Flow	record
Water to EOP bottom shower	Design Maximum	862
Water to hydrodoctor	Design Maximum	200
Repulper dilution water	Design Maximum	174
Condensate from steam	Design Maximum	35

Line No.2 (Softwood)

Acid Sewer

Water Source(D Stage)	Flow Determination	GPM
ClO_2 to D0 tower	Metered Flow	record
H_2SO_4 flow	Metered Flow	record
Water to D0 hydrodoctor	Design Maximum	200
ClO_2 to D1 tower	Metered Flow	record
Water to D1 hydrodoctor	Design Flow	200
ClO_2 to D2 tower	Metered Flow	record
Water to D2 bottom shower	Metered Flow	record
Mill water to D2 top shower	Metered Flow	record
Water to D2 hydrodoctor	Design Flow	200
NaOH to towers	Meterd Flow	record

Alkaline Sewer

Caustic Extraction(E Stage)	Flow Determination	GPM
Caustic to EOP tower	Metered Flow	record
Water to EOP bottom shower	Metered Flow	record
Water to hydrodoctor	Design Maximum	200
Repulper dilution water	Metered Flow	record
H_2O_2 to EO	Metered Flow	record

The flow-proportioned calculations for the alkaline and acid lines are to be made separately by adding the design flows and the recorded metered flows shown above. The total discharge of chloroform for each line is determined by adding the calculated mass discharges for the acid and alkaline sewers.

17. Flow proportioned calculations are to be kept by permittee for a period no less than three years and available to the Division for inspection upon request.

18. **Best Management Practices Plan:** The permittee shall comply with Best Management Practices, as specified at 40 CFR 430.03.

19. The permittee must comply with all of the requirements in 40 CFR Part 430.02(f) for chloroform. The referenced section of 40 CFR Part 430 allows the permittee to conduct alternative monitoring of several parameters in lieu of chloroform monitoring. These parameters include the following:

    - The pH of the first chlorine dioxide bleaching stage;
    - The chlorine (Cl_2) content of the chlorine dioxide (ClO_2) used on the bleach line;
    - The kappa factor of the first chlorine dioxide bleaching stage; and
    - The total bleach line chlorine dioxide application rate.

    In the event that one or more of the benchmarks set by the permittee as required by 40 CFR Part 430.02(f) for the above parameters is exceeded, the permittee is required to follow the procedures set forth in 40 CFR 430.02(f)(6). This includes immediately demonstrating compliance with the chloroform limits set forth in Part IA of the permit.

20. [RESERVED]

21. The permittee currently uses an elemental chlorine free bleaching process. The permittee must modify this permit if the bleaching process is changed to one which is not elemental chlorine free.

22. The permittee may use any EPA approved method based on 40 CFR Part 136 provided the minimum quantification level (MQL) for the chosen method is equal to or less than what has been specified in chart below:

Pollutant	MQL (µg/l)
Total Recoverable Arsenic	0.5

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

MQL = 3.3 x MDL

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

23. With the exception of whole effluent toxicity testing (WET) requirements, the permittee may request a one-time monitoring frequency reduction for pollutants listed in Part I, Section A, *Effluent Limitations and Monitoring Requirements*. Any request for a monitoring frequency reduction must be submitted in writing to DEQ, and signed by the Responsible Official, in accordance with Part III.D.11.A of the permit.

The following requirements must be met before a review of the monitoring frequency reduction request will be performed:

A. Compliance with the permit limits for at least the last two (2) years for the pollutants for which a request has been made for a monitoring frequency reduction;

B. No operational or design changes have been made to the facility for at least the last two (2) years (or during period of review, if greater than two (2) years), and are not anticipated for the remaining term of this permit.

If the above conditions are met, a detailed review of the DMR data will be performed for the pollutants for which a monitoring frequency reduction has been requested. Compliance with the limits does not guarantee a monitoring frequency reduction will be granted. Data must show that the average concentration of the pollutants in the discharge are less than 75% of the permit limits for a monitoring frequency reduction to be granted.

If a monitoring frequency reduction is granted, the frequency can be reduced by no more than half the rate of the corresponding frequency listed in Part I, Section A, *Effluent Limitations*

and Monitoring Frequencies. For example, a monitoring frequency of 4 per month will not be reduced to less than 2 per month. Additionally, the frequency will be no less frequent than monthly.

PART III
STANDARD CONDITIONS

SECTION A – GENERAL CONDITIONS

1. Duty to Comply

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

2. Penalties for Violations of Permit Conditions

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

3. Permit Actions

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

A. Violation of any terms or conditions of this permit.
B. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts.
C. A change in any conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge.
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 APC&EC Rule 9 (Permit fees) as required by Part III.A.11 herein.

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

4. Toxic Pollutants

Notwithstanding Part III.A.3, if any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under APC&EC Rule 2, as amended, or Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitations on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standards or prohibition and the permittee so notified.

The permittee shall comply with effluent standards, narrative criteria, or prohibitions established under APC&EC Rule 2, as amended, or Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

5. Civil and Criminal Liability

Except as provided in permit conditions for "Bypass of Treatment Facilities" (Part III.B.4), and "Upset" (Part III.B.5), 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 subject the permittee to criminal enforcement pursuant to the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 et seq.).

6. Oil and Hazardous Substance Liability

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

7. State Laws

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

8. Property Rights

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

9. Severability

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

10. Applicable Federal, State or Local Requirements

Permittees are responsible for compliance with all applicable terms and conditions of this permit. Receipt of this permit does not relieve any operator of the responsibility to comply with any other applicable federal requirements such as endangered species, state or local statute, ordinance or regulation.

11. Permit Fees

The permittee shall comply with all applicable permit fee requirements (i.e., including annual permit fees following the initial permit fee that will be invoiced every year the permit is active) for wastewater discharge permits as described in APC&EC Rule 9 (Rule for the Fee System for Environmental Permits). Failure to promptly remit all required fees shall be grounds for the Director to initiate action to terminate this permit under the provisions of 40 CFR Parts 122.64 and 124.5(d), as adopted in APC&EC Rule 6 and the provisions of APC&EC Rule 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 ensure 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**

"Bypass" means the intentional diversion of waste streams from any portion of a treatment facility, as defined at 40 CFR 122.41(m)(1)(i).

A. Bypass not exceeding limitation

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

B. Notice

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

C. Prohibition of bypass

1. Bypass is prohibited and the Director may take enforcement action against a permittee for bypass, unless:

(a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage.
(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal or preventive maintenance.
(c) The permittee submitted notices as required by Part III.B.4.B.

2. The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in Part III.B.4.C(1).

5. Upset Conditions

A. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Part III.B.5.B of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

B. Conditions necessary for demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that the permittee can identify the specific cause(s) of the upset.
2. The permitted facility was at the time being properly operated.
3. The permittee submitted notice of the upset as required by Part III.D.6.
4. The permittee complied with any remedial measures required by Part III.B.3.

C. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

6. Removed Substances

A. Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the State. The Permittee must comply with all applicable state and Federal regulations governing the disposal of sludge, including but not limited to 40 CFR Part 503, 40 CFR Part 257, and 40 CFR Part 258.

B. Any changes to the permittee's disposal practices described in the Fact Sheet, as derived from the permit application, will require at least 180 days prior notice to the Director to allow time for additional permitting. Please note that the 180 day notification requirement may be waived if additional permitting is not required for the change.

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 discharge shall be monitored.

2. **Flow Measurement**

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure 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.

Calculated Flow Measurement

For calculated flow measurements that are performed in accordance with either the permit requirements or a Division approved method (i.e., as allowed under Part II.3), the +/- 10% accuracy requirement described above is waived. This waiver is only applicable when the method used for calculation of the flow has been reviewed and approved by the Division.

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 ensure accuracy of measurements and shall ensure 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 ensure 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**

40 CFR 127.11(a)(1) and 40 CFR 127.16(a) require that monitoring reports must be reported on a Discharge Monitoring Reports (DMR) and filed electronically. Signatory Authorities must initially request access for a NetDMR account. Once a NetDMR account is established,

access to electronic filing should use the following link https://cdx.epa.gov. Permittees who are unable to file electronically may request a waiver from the Director in accordance with 40 CFR 127.15. Monitoring results obtained during the previous monitoring period shall be summarized and reported on a DMR dated and submitted no later than the 25th day of the month, following the completed reporting period beginning on the effective date of the permit.

6. **Additional Monitoring by the Permittee**

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

7. **Retention of Records**

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

8. **Record Contents**

Records and monitoring information shall include:

A. The date, exact place, time and methods of sampling or measurements, and preservatives used, if any.
B. The individual(s) who performed the sampling or measurements.
C. The date(s) and time analyses were performed.
D. The individual(s) who performed the analyses.
E. The analytical techniques or methods used.
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.

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 to the Director as soon as possible but no later than 180 days prior to any planned physical alterations or additions to the permitted facility [40 CFR 122.41(l)]. Notice is required only when:

A. The alteration or addition to a permitted facility may meet one of the criteria for new sources at 40 CFR 122.29(b).
B. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants subject to effluent limitations in the permit, or to the notification requirements under 40 CFR 122.42(b).

2. **Anticipated Noncompliance**

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

3. **Transfers**

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

4. **Monitoring Reports**

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

5. **Compliance Schedule**

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

6. **Twenty-four Hour Report**

A. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain the following information:

1. A description of the noncompliance and its cause.
2. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue.
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.
3. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in Part I of the permit to be reported within 24 hours to the Enforcement Branch of the Office of Water Quality of the DEQ.

C. The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours to the Enforcement Branch of the Office of Water Quality of the DEQ.

7. **Other Noncompliance**

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

8. **Changes in Discharge of Toxic Substances for Industrial Dischargers including Existing Manufacturing, Commercial, Mining, and Silvicultural Dischargers**

The Director shall be notified as soon as the permittee knows or has reason to believe:

A. That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis of any toxic pollutant including those listed in 40 CFR 401.15 which is not limited in the permit, if that discharge will exceed the highest of the "notification levels" described in 40 CFR Part 122.42(a)(1).

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 including those listed in 40 CFR 401.15 which is not limited in the permit, if that discharge will exceed the highest of the "notification levels" described in 40 CFR Part 122.42(a)(2).

9. **Duty to Provide Information**

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

10. **Duty to Reapply**

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

11. **Signatory Requirements**

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

A. All **permit applications** shall be signed as follows:

1. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

   (a) 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.
   (b) 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.

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:

   (a) The chief executive officer of the agency.
   (b) 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).
   3. The written authorization is submitted to the Director.

C. Certification. Any person signing a document under this section shall make the following certification:

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

12. **Availability of Reports**

Except for data determined to be confidential under 40 CFR Part 2 and APC&EC Rule 6, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Division of Environmental Quality. As required by the Rules, the name and address of any permit applicant or permittee, permit applications, permits, and effluent data shall not be considered confidential.

13. **Penalties for Falsification of Reports**

The Arkansas Air and Water Pollution Control Act provides that any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this permit shall be subject

to civil penalties specified in Part III.A.2 and/or criminal penalties under the authority of the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 et seq.).

14. **Other Information**

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

PART IV
DEFINITIONS

All definitions contained in Section 502 of the Clean Water Act and 40 CFR 122.2 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. **"7-Day Average"** Also known as "average weekly" means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week. The 7-Day Average for Fecal Coliform Bacteria (FCB) or E-Coli is the geometric mean of the "daily discharges" of all effluent samples collected during a calendar week in colonies per 100 ml.
2. **"Act"** means the Clean Water Act, Public Law 95-217 (33.U.S.C. 1251 et seq.) as amended.
3. **"Administrator"** means the Administrator of the U.S. Environmental Protection Agency.
4. **"APC&EC"** means the Arkansas Pollution Control and Ecology Commission.
5. **"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.
6. **"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 (APC&EC) Rule 2, as amended.
7. **"Best Management Practices (BMPs)"** are activities, practices, maintenance procedures, and other management practices designed to prevent or reduce the pollution of waters of the State. BMPs also include treatment technologies, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw sewage. BMPs may include structural devices or nonstructural practices.
8. **"Bypass"** means the intentional diversion of waste streams from any portion of a treatment facility, as defined at 40 CFR 122.41(m)(1)(i).
9. **"Composite sample"** is a mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing a minimum of 4 effluent portions collected at equal time intervals (but not closer than one hour apart) during operational hours, within the 24-hour period, and combined proportional to flow or a sample collected at more frequent intervals proportional to flow over the 24-hour period.
10. **"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.
    A. **Mass Calculations**: For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of pollutant discharged over the sampling day.
    B. **Concentration Calculations**: For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.
11. **"Daily Maximum"** discharge limitation means the highest allowable "daily discharge" during the calendar month.

12. **"Director"** means the Director of the Division of Environmental Quality.
13. **"Dissolved oxygen limit"** shall be defined as follows:
    a. When limited in the permit as a minimum monthly average, 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.
14. **"Division"** means the Division of Environmental Quality (**DEQ**).
15. **"E-Coli"** a sample consists of one effluent grab portion collected during a 24-hour period at peak loads. For E-Coli, report the Daily Maximum as the highest "daily discharge" during the calendar month, and the Monthly Average as the geometric mean of all "daily discharges" within a calendar month, in colonies per 100 ml.
16. **"Fecal Coliform Bacteria (FCB)"** a sample consists of one effluent grab portion collected during a 24-hour period at peak loads. For FCB, report the Daily Maximum as the highest "daily discharge" during the calendar month, and the Monthly Average as the geometric mean of all "daily discharges" within a calendar month, in colonies per 100 ml.
17. **"Grab sample"** means an individual sample collected in less than 15 minutes in conjunction with an instantaneous flow measurement.
18. **"Industrial User"** means a nondomestic discharger, as identified in 40 CFR Part 403, introducing pollutants to a POTW.
19. **"Instantaneous flow measurement"** means the flow measured during the minimum time required for the flow-measuring device or method to produce a result in that instance. To the extent practical, instantaneous flow measurements coincide with the collection of any grab samples required for the same sampling period so that together the samples and flow are representative of the discharge during that sampling period.
20. **"Instantaneous Maximum"** when limited in the permit as an instantaneous maximum value, shall mean that no value measured during the reporting period may fall above the stated value.
21. **"Instantaneous Minimum"** an instantaneous minimum value, shall mean that no value measured during the reporting period may fall below the stated value.
22. **"Monitoring and Reporting"**
    When a permit becomes effective, monitoring requirements are of the immediate period of the permit effective date. Where the monitoring requirement for an effluent characteristic is monthly or more frequently, the Discharge Monitoring Report (DMR) shall be submitted by the 25th of the month following the sampling. Where the monitoring requirement for an effluent characteristic is Quarterly, Semi-Annual, Annual, or Yearly, the DMR shall be submitted by the 25th of the month following the monitoring period end date.

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

B. **BI-MONTHLY:**
is defined as two (2) calendar months or any portion of 2 calendar months for monitoring requirement frequency of once/2 months or more frequently.

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

D. **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.

E. **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.

23. **"Monthly Average"** means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month. For Fecal Coliform Bacteria (FCB) or E-Coli, report the Monthly Average as the geometric mean of all "daily discharges" within a calendar month.
24. **"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.
25. **"POTW"** means Publicly Owned Treatment Works;
26. **"Reduction of $CBOD_5$/BOD_5 and TSS in mg/l Formula"**
[(Influent – Effluent) / Influent] × 100
27. **"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.
28. **"Sewage sludge"** means the solids, residues, and precipitate separated from or created in sewage by the unit processes at a POTW. Sewage as used in this definition means any wastes, including wastes from humans, households, commercial establishments, industries, and stormwater runoff that are discharged to or otherwise enter a POTW.

29. **"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.
30. **Units of Measure:**
    "MGD" shall mean million gallons per day.
    "mg/l" shall mean milligrams per liter or parts per million (ppm).
    "µg/l" shall mean micrograms per liter or parts per billion (ppb).
    "cfs" shall mean cubic feet per second.
    "ppm" shall mean parts per million.
    "s.u." shall mean standard units.
31. **"Upset"** means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. Any upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventive maintenance, or careless of improper operations.
32. **"Visible sheen"** means the presence of a film or sheen upon or a discoloration of the surface of the discharge. A sheen can also be from a thin glistening layer of oil on the surface of the discharge.
33. **"Weekday"** means Monday – Friday.

Final Fact Sheet

This Fact Sheet is for information and justification of the permit limits only. Please note that it is not enforceable. This permitting decision is for renewal of the discharge Permit Number AR0002968 with Arkansas Department of Energy and Environment – Division of Environmental Quality (DEQ) Facility Identification Number (AFIN) 41-00002 to discharge to Waters of the State.

1. **PERMITTING AUTHORITY**

The issuing office is:

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

2. **APPLICANT**

The applicant's mailing address and physical location is:

Domtar A.W. LLC - Ashdown Mill
285 Hwy. 71 South
Ashdown, AR 71822

3. **PREPARED BY**

The permit was prepared by:

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4. **PERMIT ACTIVITY**

Previous Permit Effective Date: May 1, 2007
Previous Permit Expiration Date: April 30, 2012

The permittee submitted a permit renewal application on November 3, 2011, with all additional information received by May 9, 2012. The public notice for the draft permit was sent to the newspaper on October 3, 2012, and was published on October 10, 2012. The permittee submitted comments on November 8, 2012. The discharge permit is reissued for a 5-year term in accordance with regulations promulgated at 40 CFR Part 122.46(a).

These comments and the Division's responses are as follows:

COMMENT #1

The effluent guidelines for bleach plant effluent (40 CFR 430.24(a)(1)) require limitations for 2,3,7,8-TCDD (dioxin). In accordance with the effluent guidelines, the permit contains dioxin limits at the three internal outfalls. The draft permit also contains a dioxin limit at the external outfall, Outfall 001. The limit at Outfall 001 is not required by the effluent guidelines. Based on the Fact Sheet, the dioxin limits at Outfall 001 were continued from the previous permit in order to not violate the anti-backsliding standards even though reasonable potential for water quality violations has not been demonstrated.

The formation of dioxin in bleach plant effluent is linked to elemental chlorine bleaching of pulp which used to be standard industry practice. Industry data indicate the dioxin is not expected to be present in elemental chlorine free bleach plant effluents. The facility converted to elemental chlorine free bleaching in 2000. During the current permit, dioxin has not been detected in the final effluent or at the internal outfalls.

The permittee requested that the dioxin limit at Outfall 001 be removed. The permittee stated that it is their understanding that the requested change would be an exception to the anti-backsliding regulations since it is based on a substantial change at the facility and the data collected during the term of the previous permit.

RESPONSE #1

The dioxin limit at Outfall 001 was first included in a modified permit issued to this facility by the EPA in 1991. Per the EPA's response to comments, Section 304(l) of the Clean Water Act requires the listing of receiving water segments on the Section 304(l)(1)(B) list for all those receiving waters where a Section 307(a) toxic pollutant is expected to exceed the State water quality standards. On June 4, 1990, EPA region VI listed this receiving water due to the level of dioxin detected in ambient fish tissue downstream of the mill discharge. Inclusion on this list requires the establishment of a water quality based effluent limitation for dioxin in the NPDES permit for facilities discharging to those receiving waters, in accordance with the time frames given in Section 304(l) of the Act.

At this time, there are no fish consumption advisories for the Red River due to dioxins. Also, this facility has made a substantial change in the operations at this facility, i.e., use of elemental chlorine free bleaching, which have significantly reduced the dioxin levels in the effluent. Dioxins have been below detection levels in the final effluent from this facility for the term of the previous permit. Therefore, the dioxin requirements will be removed from Outfall 001. The dioxin requirements for the internal outfalls associated with the bleach plant are remaining unchanged.

The dioxin levels in the final effluent have the potential to increase if the bleaching process changes. Therefore, a condition will be added to Part II of the permit stating that an elemental chlorine free bleaching process must be used unless the permit is modified.

See Item #14.B of this Fact Sheet (Anti-Backsliding) for additional information concerning the removal of the dioxin requirements at Outfall 001.

COMMENT #2

The permittee requested that the fish tissue sampling requirements be removed from the permit. Similar to their discussion in Issue #1, dioxin is not expected to be present in this facility's effluent due to the conversion to elemental chlorine free bleaching. Additionally, the historical fish tissue analyses have all resulted in non-detect for dioxins.

RESPONSE #2

The Division recognizes that dioxins have not been detected in the final effluent from Outfall 001 during the term of the previous permit which was issued in 2007. However, dioxins may occur in such low amounts that detection is not possible when testing the effluent. Dioxins are highly persistent in the environment with reported half-lives in soil and sediment ranging from months to years. Dioxins, which are known to bio-accumulate in fish, have very low solubility in water and low volatility. Therefore most are contained in soil and sediments from which dioxins may be released over a long period of time and enter the food chain. Concentrations of dioxins in aquatic organisms may be hundreds to thousands of times higher than the concentrations found in the surrounding waters or sediments.

According to the *Permit Guidance Document - Pulp, Paper, and Paperboard Manufacturing Point Source Category* (EPA, May 2000), during the late 1980s, bleaching with chlorine and hypochlorite were discovered to be sources of dioxin and furan. Although use of chlorine dioxide (ClO_2) bleaching minimizes the formation of chlorinated pollutants, measureable quantities of 2,3,7,8-TCDF and possibly 2,3,7,8-TCDD may still be formed. Dioxin and furan are not effectively degraded during wastewater treatment; they partition either to sludge or pass into receiving waters untreated.

The Division is required to protect the existing uses of a receiving stream by Rule 2.201 and 40 CFR 131.12(a)(1). Although there is not specific numerical fish tissue criteria for dioxins in Rule 2, the Division is required to place any monitoring requirements in the permit which are necessary to ensure that the existing uses of the receiving stream are protected. The requirement for sampling fish tissue for dioxins will remain in the permit. However, the Division will reduce the monitoring frequency to once every five years based on the past test results.

COMMENT #3

The Fact Sheet states that the FCB monitoring frequency has been reduced to once per quarter. However, this is not reflected in the permit.

RESPONSE #3

The correction has been made as requested.

COMMENT #4

Condition #20 of Part II of the permit requires the submittal of information relative to the cooling water intake structure (CWIS) within 60 days of permit issuance. According to the Fact Sheet, the basis for this requirement is Section 316(b) of the Clean Water Act. To date, regulations and standards for compliance with Section 316(b) have not been finalized by EPA. It would seem premature for the Division to establish permit requirements relative to the CWIS prior to the development of specific standards. Furthermore, based on draft regulations and standards, it does not appear that this facility's intake structure is considered a regulated CWIS. This facility uses significantly less than 25% of the water for once-through cooling, which has been the regulatory threshold in draft regulations. In addition, this facility's intake structure is located at the end of a 7-mile long canal that receives water pumped from Millwood Lake. The canal is made for this specific purpose and is restricted from public access. Therefore, the permittee requested that Condition No. 20 of Part II of the permit be removed.

RESPONSE #4

A water intake structure in Lake Millwood and associated intake canal leading to the Domtar paper mill was built in 1967 by the Southwest Arkansas Water District (SWAWD). SWAWD is the owner and operator of the Millwood Lake intake structure and intake canal. The Domtar paper mill is located at the end of the seven-mile long intake canal. The SWAWD provides water to the Little River Rural Development Authority, City of Hope Water and Light, SWEPCO - John W. Turk Jr. power plant, and the Domtar paper mill. SWAWD is a public water system since it supplies potable water to residential populations. Domtar paper mill obtains all cooling water from SWAWD. Pursuant to 40 CFR 125.91(c), obtaining cooling water from a public water system does not constitute use of a cooling water intake structure for purposes of Subpart J – Requirements Applicable to Cooling Water Intake Structures for Existing Facilities Under Section 316(b) of the Clean Water Act. Therefore, 316(b) requirements are not applicable to this facility. Therefore, the referenced condition will be removed from the permit.

COMMENT #5

In the WET testing section of the Fact Sheet, a reference is made that the 7Q10 of the receiving stream is less than 100 cfs. As stated elsewhere in the Fact Sheet, the 7Q10 is greater than 100 cfs.

RESPONSE #5

The Fact Sheet has been corrected to read as follows: "Although the 7Q10 is greater than 100 cfs (ft^3/sec), the dilution ratio is less than 100:1. Therefore, chronic WET testing requirements will be included in the permit."

COMMENT #6

The permittee requested several updates be made to Condition No. 16 of Part II of the permit to reflect actual operations. The changes mainly include updates to several flow rates of various water sources and caustic extraction stages.

RESPONSE #6

The changes have been made as requested.

HOLD STATUS

Based on the changes and the finalization of the TMDL[1] after the public notice of the draft permit was sent to the newspaper, it was determined that the permit would need to be sent back to public notice. While the second draft permit was being prepared, due to the consideration of numerous and complex options for compliance with the TMDL for this and other similar permits in the watershed, this permit and others were placed on hold. On November 16, 2018, the TMDL for the portion of the Red River into which the permittee discharges was withdrawn and the permit application was taken off hold.

Prior to issuance of a draft permit after the permit was taken off hold, the permittee submitted the following comments, dated August 7, 2019, with requested changes to the draft permit. The Division's responses are included below. Comments made on portions of the Fact Sheet which have been removed and are now marked as "Reserved" are not included below.

COMMENT #7

The permittee requested that Item No. 12 of this Fact Sheet be revised to read as follows:

"*Sludge is either landfilled on site (DEQ Solid Waste Permit No. 244-S) or is incorporated into a beneficial use soil amendment mixture licensed and permitted by the Arkansas Plant Board. The soil amendement mixture is hauled off site and spread on local farm lands.*"

[1] "TMDLs For Chloride, Sulfate, And TDS For The Red River, Sulphur River, And McKinney Bayou, Arkansas"

RESPONSE #7

The change will be made as requested.

COMMENT #8

The permittee requested that the WET testing section of the Fact Sheet reflect that they use synthetic dilution water.

RESPONSE #8

The change will be made as requested.

COMMENT #9

The permittee requested that the chloroform monitoring frequency be changed from continuous to once per quarter.

RESPONSE #9

The monitoring frequency for chloroform has been removed from Part IA of the permit. In lieu of listing the chloroform monitoring frequency in Part IA, the permit now refers the reader to Part II, Condition No. 19. This condition has been revised to read as follows. The changes are in italics.

19. The permittee must comply with all of the requirements in 40 CFR Part 430.02(f) for chloroform. The referenced section of 40 CFR Part 430 allows the permittee to conduct alternative monitoring of several parameters in lieu of chloroform monitoring. *These parameters include the following:*

    - *The pH of the first chlorine dioxide bleaching stage;*
    - *The chlorine (Cl_2) content of the chlorine dioxide (ClO_2) used on the bleach line;*
    - *The kappa factor of the first chlorine dioxide bleaching stage; and*
    - *The total bleach line chlorine dioxide application rate.*

    ~~Chloroform monitoring is only required in the event that one of the alternative parameter benchmarks is exceeded.~~ *In the event that one or more of the benchmarks set by the permittee for the above parameters is exceeded, the permittee is required to follow the procedures set forth in 40 CFR 430.02(f)(6). This includes immediately demonstrating compliance with the chloroform limits set forth in Part IA of the permit.*

COMMENT #10

The permittee requested that the AOX monitoring frequency be reduced from once per week to once per month. Many years of data show the levels of AOX discharged to be well below

the limit, generally 25% of the limit or less. This would be expected with the elimination of elemental chlorine bleaching.

RESPONSE #10

The results from the last two years have been reviewed. In consideration of the EPA's guidance on monitoring frequency reduction, which takes into account the current monitoring frequency and the average of the test results from the past two years as a percentage of the permit limit, the AOX monitoring frequency may be reduced from once per week to once every two months. This change has been incorporated into the permit.

COMMENT #11

The permittee requested that the permit be issued with a required WET test frequency of once per year. This is justified based on the many years of passing the effluent WET test, demonstrating compliance with the toxicity requirements.

RESPONSE #11

At the time of permit renewal, all WET test frequencies are set back to a minimum of once per quarter. This is a requirement of EPA and is also in the CPP.

COMMENT #12

The permittee requested that the testing frequency of dioxin and chlorinated compounds at the internal outfalls be reduced from quarterly to annually. During the other three quarters, in lieu of sampling, the permittee would provide a certification stating that there have been no changes in the bleaching process and that chlorine dioxide is the exclusive chlorine containing bleaching agent.

RESPONSE #12

The parameters in question were added to the applicable subpart of 40 CFR 430 in the April 15, 1998, rule. According to the *Permit Guidance Document - Pulp, Paper, and Paperboard Manufacturing Point Source Category* (EPA, May 2000), during the late 1980s, bleaching with chlorine and hypochlorite were discovered to be sources of dioxin and furan. Although use of chlorine dioxide (ClO_2) bleaching minimizes the formation of chlorinated pollutants, measureable quantities of 2,3,7,8-TCDF and possibly 2,3,7,8-TCDD may still be formed. Dioxin and furan are not effectively degraded during wastewater treatment; they partition either to sludge or pass into receiving waters untreated.

Typically, bleaching processes that result in the formation of 2,3,7,8-TCDF and 2,3,7,8-TCDD also generate the higher substituted tri-, tetra-, and penta-chlorinated compounds which are also limited by 40 CFR Part 430, Subpart B.

Dioxins and chlorinated compounds were added to the ELGs when the use of elemental chlorine was banned. Therefore, the ELGs intended for the parameters to be monitored even though elemental chlorine would not be used. Certification in lieu of monitoring does not fulfill the requirements of the ELGs. Therefore, monitoring of the referenced parameters will continue to be once per quarter.

DOCUMENT ABBREVIATIONS

In the document that follows, various abbreviations are used. They are as follows:

BAT - best available technology economically achievable
BCT - best conventional pollutant control technology
BMP - best management practice
BOD_5 - five-day biochemical oxygen demand
BPJ - best professional judgment
BPT - best practicable control technology currently available
$CBOD_5$ - carbonaceous biochemical oxygen demand
CD - critical dilution
CFR - Code of Federal Regulations
cfs - cubic feet per second
COD - chemical oxygen demand
COE - United States Corp of Engineers
CPP - continuing planning process
CWA - Clean Water Act
DMR - discharge monitoring report
DO - dissolved oxygen
ELG - effluent limitation guidelines
EPA - United States Environmental Protection Agency
ESA - Endangered Species Act
FCB - fecal coliform bacteria
gpm - gallons per minute
MGD - million gallons per day
MQL - minimum quantification level
NAICS - North American Industry Classification System
NH3-N - ammonia nitrogen
NO_3 + NO_2-N - nitrate + nitrite nitrogen
NPDES - National Pollutant Discharge Elimination System
O&G - oil and grease
Rule 2 - APCEC Rule No. 2
Rule 6 - APCEC Rule No. 6
Rule 8 - APCEC Rule No. 8
Rule 9 - APCEC Rule No. 9
RP - reasonable potential
SIC - standard industrial classification
TDS - total dissolved solids
TMDL - total maximum daily load

TP - total phosphorus
TRC - total residual chlorine
TSS - total suspended solids
UAA - use attainability analysis
USF&WS - United States Fish and Wildlife Service
WET - Whole effluent toxicity
WQMP - water quality management plan
WQS - Water Quality standards
WWTP - wastewater treatment plant

Compliance and Enforcement History:

The compliance and enforcement history for this facility can be reviewed by using the following web link:

http://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0002968_Updated%20Compliance%20Review_20200127.pdf

5. **RESERVED**

6. **SIGNIFICANT CHANGES FROM THE PREVIOUSLY ISSUED PERMIT**

The permittee is responsible for carefully reading the permit in detail and becoming familiar with all of the changes therein. Please note that these are changes from the previous NPDES permit.

1. 2,3,7,8-TCDD monitoring at Outfall 001 has been removed. See Item No. 4, Comment No. 1 of this Fact Sheet for additional information.
2. Fish tissue sampling frequency has been reduced to once per five years. See Item No. 4, Comment No. 2 of this Fact Sheet for additional information.
3. The FCB monitoring frequency in the permit has been reduced from once per month to once per quarter. See Item No. 16 of this Fact Sheet for additional information.
4. Flow rates in Part II, Condition No. 16 have been updated as requested by the permittee. See Item No. 4, Comment No. 6 of this Fact Sheet for additional information.
5. Condition No. 21 has been added to Part II of the permit requiring the facility to use an elemental chlorine free bleaching process unless the permit is modified.
6. The facility coordinates have been changed to the front gate of the facility.
7. The description of the facility location has been modified.
8. The "24-hr composite" samples have been changed to "composite" in order to allow flexibility in how the required samples are obtained.
9. Part II of the permit now specifies that the licensed operator of the wastewater treatment system must have at least a Basic Industrial license. An advanced license is not required at this time because this facility does not add nutrients to the wastewater treatment system.

10. BMP requirements have replaced the SWPPP requirements. The permittee is required to obtain separate permit coverage for stormwater runoff associated with industrial activity that is not discharged through Outfall 001.
11. Reserved.
12. The chloroform monitoring requirements have been clarified. See Part II, Condition No. 19 of the permit.
13. The BOD_5, TSS, AOX, and Chloroform technology based limits have changed due to changes in production levels. See Item No. 14.C.3 of this Fact Sheet for additional information.
14. Bleach plant line 1B is now a softwood line.
15. Reserved.
16. Critical dilution and dilution series changed for WET testing based on 7Q10 of 1,240 cfs at USGS Station 07337000 (Red River at Index, AR) published in USGS Scientific Investigations Report 2008-5065.
17. The AOX monitoring frequency at Outfall 001 has been reduced to once every two months. See Item No. 16 of this Fact Sheet for additional information.
18. Reserved.
19. The FCB limit for the month of April has been corrected. See Item No. 14.A of this Fact Sheet for additional information.
20. The permittee is now required to submit the DMRs electronically through NetDMR. See Part III.C.5 of the permit.
21. The WET testing language has been modified.
22. A monitoring frequency reduction condition has been added to Part II of the permit.
23. The permittee is required to conduct the testing required by EPA Form 2C within 90 days of the effective date of the permit. See Item No. 17 of this Fact Sheet for additional information.

7. RECEIVING STREAM SEGMENT AND DISCHARGE LOCATION

The outfall is located at the following coordinates based on the permit application using WGS84:

Latitude: 33° 37’ 12.6” N Longitude: 94° 05’ 59.3” W

The receiving waters named:

Effluent is conveyed through manually operated gates to a combination of underground piping and an open effluent canal that proceeds 3.3 miles south to the Red River in Segment 1B of the Red River Basin. The receiving stream with USGS Hydrologic Unit Code (H.U.C.) of 11140106 and reach #001 is a Water of the State classified for primary and secondary contact recreation, raw water source for domestic (public and private), industrial, and agricultural water supplies, propagation of desirable species of fish and other aquatic life, and other compatible uses.

8. 303(d) LIST, TMDLs, ENDANGERED SPECIES, AND ANTI-DEGRADATION CONSIDERATIONS

A. 303(d) List

In H.U.C. 11140106, the Red River is on the 2018 303(d) list for turbidity. TSS limits have been included in the permit based on the applicable ELG. The TSS limits were confirmed through a water quality model to be protective of the water quality of the receiving stream. At this time, no additional permit action is necessary.

B. TMDL

There are no TMDLs which are applicable to this facility. The facility was previously assigned a wasteload allocation for Chlorides, Sulfates, and TDS in "TMDLs For Chloride, Sulfate, And TDS For The Red River, Sulphur River, And McKinney Bayou, Arkansas", FTN Associates, Ltd., September 27, 2012. The TMDL and associated WLAs for this Assessment Unit (which includes the segment which this facility discharges to) was public noticed to be withdrawn/removed from the 208 Plan on August 29, 2018, sent to EPA for technical acceptance on October 10, 2018, technically approved by EPA on November 9, 2018, Governor Certified on February 5, 2019, and formally approved by EPA on March 8, 2019. No comments were received on the TMDL withdrawal.

C. Endangered Species

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

The Arkansas Natural Heritage Commission stated that the following species of concern are present in the receiving stream near the location of the outfall: *Cycleptus elongatus*, blue sucker – state concern; and *Sterna antillarum athalassos*, interior least tern – federal concern (endangered). The *Lampsilis abrupta*, pink mucket, is also an endangered species found in Little River County. DEQ has concluded that issuance of this NPDES permit will have no adverse impacts on any endangered or candidate species or the critical habitat.

D. Anti-Degradation

The limitations and requirements set forth in this permit for discharge into waters of the State are consistent with the Antidegradation Policy and all other applicable water quality standards found in APC&EC Rule 2.

9. **OUTFALL, TREATMENT PROCESS DESCRIPTION, AND FACILITY CONSTRUCTION**

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

A. Average Flow: 56.4 MGD. This flow is continued from the previous permit. Data from 2017 and 2018 shows that this is approximately 2.7% less than the highest monthly average from 2017 and 2018. Since the difference is less than 10%, no change in the average flow used to calculate the permit limits will be made.

B. Type of Treatment: bar screens, three primary clarifiers in parallel, a settling basin, two aeration basins, and a stabilization pond

C. Discharge Description: process wastewater, sanitary wastewater, cooling water, and contaminated stormwater runoff

D. Facility Status: This facility was evaluated using the NPDES Permit Rating Worksheet (MRAT) to determine the correct permitting status. Since the facility's MRAT score of 150 is greater than 80, this facility is classified as a major industrial.

E. Facility Construction: This permit does not authorize or approve the construction or modification of any part of the treatment system or facilities. Approval for such construction must be by permit issued under Rule 6.202.

10. **316(B) REQUIREMENTS FOR COOLING WATER INTAKE STRUCTURE**

A water intake structure in Lake Millwood and associated intake canal leading to the Domtar paper mill was built in 1967 by the Southwest Arkansas Water District (SWAWD). SWAWD is the owner and operator of the Millwood Lake intake structure and intake canal. The Domtar paper mill is located at the end of the seven-mile long intake canal. The SWAWD provides water to the Little River Rural Development Authority, City of Hope Water and Light, SWEPCO - John W. Turk Jr. power plant, and the Domtar paper mill. SWAWD is a public water system since it supplies potable water to residential populations. Domtar paper mill obtains all cooling water from SWAWD. Pursuant to 40 CFR 125.91(c), obtaining cooling water from a public water system does not constitute use of a cooling water intake structure for purposes of Subpart J – Requirements Applicable to Cooling Water Intake Structures for Existing Facilities Under Section 316(b) of the Clean Water Act. Therefore, 316(b) requirements are not applicable to this facility.

11. **ACTIVITY**

Under the Standard Industrial Classification (SIC) code of 2611 or North American Industry Classification System (NAICS) code of 322121, the applicant's activities are the operation of a bleach paper mill.

12. SLUDGE PRACTICES

Sludge is either landfilled on site (DEQ Solid Waste Permit No. 244-S) or is incorporated into a beneficial use soil amendment mixture licensed and permitted by the Arkansas Plant Board. The soil amendment mixture is hauled off site and spread on farm lands.

13. RESERVED

14. BASIS FOR PERMIT CONDITIONS

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

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

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

Parameter		Water Quality-Based		Technology-Based		Previous 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									
BOD_5 (year-round)		N/A	N/A	37,566.9 lb/day	72,230.1 lb/day	36,191 lb/day	69,664.8 lb/day	37,566.9 lb/day	72,230.1 lb/day
BOD_5 (lbs BOD_5 per cfs of receiving stream)									
August	T ≥ 29°C	N/A	7.6 lbs/cfs	N/A	N/A	N/A	7.6 lbs/cfs	N/A	7.6 lbs/cfs
	27°C < T < 28.9°C	N/A	11.4 lbs/cfs	N/A	N/A	N/A	11.4 lbs/cfs	N/A	11.4 lbs/cfs
	T ≤ 26.9°C	N/A	16.0 lbs/cfs	N/A	N/A	N/A	16.0 lbs/cfs	N/A	16.0 lbs/cfs
September	T ≥ 27°C	N/A	7.3 lbs/cfs	N/A	N/A	N/A	7.3 lbs/cfs	N/A	7.3 lbs/cfs
	24°C < T < 26.9°C	N/A	9.9 lbs/cfs	N/A	N/A	N/A	9.9 lbs/cfs	N/A	9.9 lbs/cfs
	T ≤ 23.9°C	N/A	14.7 lbs/cfs	N/A	N/A	N/A	14.7 lbs/cfs	N/A	14.7 lbs/cfs
October	T > 20°C	N/A	15.8 lbs/cfs	N/A	N/A	N/A	15.8 lbs/cfs	N/A	15.8 lbs/cfs
	T ≤ 20°C	N/A	20.0 lbs/cfs	N/A	N/A	N/A	20.0 lbs/cfs	N/A	20.0 lbs/cfs

Parameter	Water Quality-Based		Technology-Based		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
TSS	N/A	N/A	78,577.2 lb/day	145,924.2 lb/day	77,188.2 lb/day	143,582.7 lb/day	78,577.2 lb/day	145,924.2 lb/day
AOX	N/A	N/A	3,491.3 lb/day	5,329.4 lb/day	3,452.7 lb/day	5,270.4 lb/day	3,491.3 lb/day	5,329.4 lb/day
SO_4	N/A	N/A	Report	Report	Report	Report	Report	Report
TDS	N/A	N/A	Report	Report	Report	Report	Report	Report
FCB, col./100 ml								
(April)	1000	2000	N/A	N/A	200	400	1000	2000
(May – September)	200	400	N/A	N/A	200	400	200	400
(October – March)	1000	2000	N/A	N/A	1000	2000	1000	2000
Total Rec. Arsenic	N/A	N/A	Report µg/l	Report µg/l	N/A	N/A	Report µg/l	Report µg/l
pH	6.0 - 9.0 s.u.		5.0 – 9.0 s.u.		6 - 9 s.u.		6.0 - 9.0 s.u.	
Internal Outfall 01A								
2,3,7,8-TCDD	N/A	N/A	N/A	< 10.0 pg/l	N/A	< 10 pg/l	N/A	< 10.0 pg/l
2,3,7,8-TCDF	N/A	N/A	N/A	31.9 pg/l	N/A	31.9 pg/l	N/A	31.9 pg/l
Trichlorosyringol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
3,4,5-Trichlorocatechol	N/A	N/A	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l
3,4,6-Trichlorocatechol	N/A	N/A	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l
3,4,5-Trichloroguaiacol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
3,4,6-Trichloroguaiacol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
4,5,6-Trichloroguaiacol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
2,4,5-Trichlorophenol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
2,4,6-Trichlorophenol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
Tetrachlorocatechol	N/A	N/A	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l
Tetrachloroguaiacol	N/A	N/A	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l
2,3,4,6-Tetrachlorophenol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
Pentachlorophenol	N/A	17.74 µg/l*	N/A	<5.0 µg/l	N/A	<5.0 µg/l	N/A	<5.0 µg/l
Chloroform	N/A	N/A	6.4 lbs/day	10.8 lbs/day	7.2 lbs/day	12.0 lbs/day	6.4 lbs/day	10.8 lbs/day

Parameter	Water Quality-Based		Technology-Based		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
Internal Outfall 01B								
2,3,7,8-TCDD	N/A	N/A	N/A	< 10.0 pg/l	N/A	< 10 pg/l	N/A	< 10.0 pg/l
2,3,7,8-TCDF	N/A	N/A	N/A	31.9 pg/l	N/A	31.9 pg/l	N/A	31.9 pg/l
Trichlorosyringol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
3,4,5-Trichlorocatechol	N/A	N/A	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l
3,4,6-Trichlorocatechol	N/A	N/A	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l
3,4,5-Trichloroguaiacol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
3,4,6-Trichloroguaiacol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
4,5,6-Trichloroguaiacol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
2,4,5-Trichlorophenol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
2,4,6-Trichlorophenol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
Tetrachlorocatechol	N/A	N/A	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l
Tetrachloroguaiacol	N/A	N/A	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l
2,3,4,6-Tetrachlorophenol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
Pentachlorophenol	N/A	17.74 µg/l*	N/A	<5.0 µg/l	N/A	<5.0 µg/l	N/A	<5.0 µg/l
Chloroform	N/A	N/A	6.7 lbs/day	11.2 lbs/day	7.1 lbs/day	11.8 lbs/day	6.7 lbs/day	11.2 lbs/day
Internal Outfall 01C								
2,3,7,8-TCDD	N/A	N/A	N/A	< 10.0 pg/l	N/A	< 10 pg/l	N/A	< 10.0 pg/l
2,3,7,8-TCDF	N/A	N/A	N/A	31.9 pg/l	N/A	31.9 pg/l	N/A	31.9 pg/l
Trichlorosyringol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
3,4,5-Trichlorocatechol	N/A	N/A	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l
3,4,6-Trichlorocatechol	N/A	N/A	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l
3,4,5-Trichloroguaiacol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
3,4,6-Trichloroguaiacol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
4,5,6-Trichloroguaiacol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l

Parameter	Water Quality-Based		Technology-Based		Previous 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
2,4,5-Trichlorophenol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
2,4,6-Trichlorophenol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
Tetrachlorocatechol	N/A	N/A	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l
Tetrachloroguaiacol	N/A	N/A	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l	N/A	< 5.0 µg/l
2,3,4,6-Tetrachlorophenol	N/A	N/A	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l	N/A	< 2.5 µg/l
Pentachlorophenol	N/A	17.74 µg/l*	N/A	<5.0 µg/l	N/A	<5.0 µg/l	N/A	<5.0 µg/l
Chloroform	N/A	N/A	10.0 lbs/day	16.8 lbs/day	8.4 lbs/day	14.0 lbs/day	10.0 lbs/day	16.8 lbs/day

*Chronic aquatic life criteria.

A. **Justification for Limitations and Conditions of the Permit**

Parameter	Water Quality or Technology	Justification
Outfall 001		
BOD_5 (lbs/day)	Technology	40 CFR 430.22(a), 40 CFR 122.44(l), and previous permit
BOD_5 (lbs/cfs stream flow)	Water Quality	Rule 2.505, based on maintaining DO standard in receiving stream, CWA §402(o), and previous permit
TSS	Technology	40 CFR 430.22(a), 40 CFR 122.44(l), and previous permit
AOX	Technology	40 CFR 430.24(a)(1), 40 CFR 122.44(l), and previous permit
SO_4	Technology	40 CFR 122.44(l) and previous permit
TDS	Technology	40 CFR 122.44(l) and previous permit
FCB	Water Quality	Rule 2.507, CWA §402(o), and previous permit
Total Rec. Arsenic	Technology	Rule 2.409 and CPP
pH	Water Quality	Rule 2.504, CWA §402(o), and previous permit
INTERNAL OUTFALLS 01A, 01B, & 01C		
2,3,7,8-TCDD	Technology	40 CFR 430.24(a)(1), 40 CFR 122.44(l), and previous permit
2,3,7,8-TCDF	Technology	40 CFR 430.24(a)(1), 40 CFR 122.44(l), and previous permit
Trichlorosyringol	Technology	40 CFR 430.24(a)(1), 40 CFR 122.44(l), and previous permit
3,4,5-Trichlorocatechol	Technology	40 CFR 430.24(a)(1), 40 CFR 122.44(l), and previous permit

Parameter	Water Quality or Technology	Justification
3,4,6-Trichlorocatechol	Technology	40 CFR 430.24(a)(1), 40 CFR 122.44(l), and previous permit
3,4,5-Trichloroguaiacol	Technology	40 CFR 430.24(a)(1), 40 CFR 122.44(l), and previous permit
3,4,6-Trichloroguaiacol	Technology	40 CFR 430.24(a)(1), 40 CFR 122.44(l), and previous permit
4,5,6-Trichloroguaiacol	Technology	40 CFR 430.24(a)(1), 40 CFR 122.44(l), and previous permit
2,4,5-Trichlorophenol	Technology	40 CFR 430.24(a)(1), 40 CFR 122.44(l), and previous permit
2,4,6-Trichlorophenol	Technology	40 CFR 430.24(a)(1), 40 CFR 122.44(l), and previous permit
Tetrachlorocatechol	Technology	40 CFR 430.24(a)(1), 40 CFR 122.44(l), and previous permit
Tetrachloroguaiacol	Technology	40 CFR 430.24(a)(1), 40 CFR 122.44(l), and previous permit
2,3,4,6-Tetrachlorophenol	Technology	40 CFR 430.24(a)(1), 40 CFR 122.44(l), and previous permit
Pentachlorophenol	Technology	40 CFR 430.24(a)(1), 40 CFR 122.44(l), and previous permit
Chloroform	Technology	40 CFR 430.24(a)(1), 40 CFR 122.44(l), and previous permit

The BOD_5, TSS, and AOX mass limits at Outfall 001 as well as the Chloroform limits at the three internal outfalls have changed. The limits have increased due to changes in production levels. See Item Nos. 14.B and 14.C.3 of this Fact Sheet for additional information.

The previous permit included the effluent limitations for FCB expressed as 200/400 (Monthly Average/7-Day Average) colonies/100ml during the month of April. These limits are now expressed as 1000/2000 (Monthly Average/7-Day Average) colonies/100ml during the month of April based on Rule 2.507.

The dioxin requirements have been removed from Outfall 001. See Response #1 of Item #4 and Item No. 14.B of this Fact Sheet for additional information.

See Item No. 14.E of this Fact Sheet for information concerning the addition of monitoring and reporting requirements for Total Recoverable Arsenic.

B. **Anti-backsliding**

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

The permit maintains the requirements of the previous permit with the exception of the following:

- The dioxin requirements at Outfall 001 were removed. These limits were first included in the permit because the Red River was listed on the Section 304(l)(1)(B) list because a Section 307(a) toxic pollutant was expected to exceed State water quality standards. Dioxins were detected in ambient fish tissue downstream of this facility's discharge. Samples taken during the term of the previous permit showed that dioxin levels were less than 1 ppt in fish tissue. The removal of the dioxin requirements at Outfall 001 does not violate the anti-backsliding standards of CWA §402(o) because it is based on new information and substantial changes at the facility (change in bleaching chemicals).
- The BOD_5, TSS, AOX, and Chloroform technology-based limits have changed. The changes are due to differences in the production levels. The changes do not violate the anti-backsliding standards of 40 CFR 122.44(l) since it is based on new information.
- The final effluent limitations for FCB in the previous permit were not consistent with current State WQS found in Chapter 5, Section 2.507 of Rule 2. The WQS have been updated since that time. This permit allows relaxation in the secondary contact season limitations. This relaxation in limitations does not constitute backsliding, based on CWA Sections 402(o) and 303(d)(4). The revised limitations continue to maintain the state anti-degradation policy by meeting the primary and secondary contact season standards of Rule 2.507, and maintaining the existing uses of the receiving stream.

C. **Limits Calculations**

1. Mass limits

In accordance with 40 CFR 122.45(f)(1), all pollutants limited in permits shall have limitations expressed in terms of mass if feasible. 40 CFR 122.45(f)(2) allows for pollutants which are limited in terms of mass to also be limited in terms of other units of measurement.

The BOD_5, TSS, AOX, and Chloroform limits are based on 40 CFR 430.22(a) and 430.24(a)(1).

2. Daily Maximum Limits

   With the exception of FCB, all daily maximum limits are based on 40 CFR 430.22(a) and 430.24(a)(1).

   The daily maximum limits for FCB are based on Rule 2.507.

3. Applicable Effluent Limitations Guidelines

   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, Subpart B – Bleached Papergrade Kraft and Soda Subcategory.

   According to the supplemental production data submitted by the permittee, Domtar's highest average monthly production of market pulp was 1329 air dry tons of pulp per day (ADTPD) while their highest monthly average production of paper 1,470 air dry tons (ADT).

   Market Pulp Production

   Effluent guidelines representing the application of the Best Practicable Control Technology Currently Available (BPT) (40 CFR Part 430.22) are applied for this industry. Therefore, the final limitations have been derived pursuant to 40 CFR Part 430.22(a) for the pollutants BOD5, TSS, and pH (see below for calculations). Effluent limitations guidelines (ELG) based on production of 1329 air dry tons / day are as follows:

40 CFR 430.22(a), BPT Effluent Limitations		
Pollutant	**Daily Maximum (lbs/1000 lbs)**	**Monthly Average (lbs/1000 lbs)**
BOD_5	15.45	8.05
TSS	30.4	16.4
pH	5.0 – 9.0 s.u.	

   Calculations

   Avg. Daily Prod. = (1329 ADT/day) X (2,000 lbs/ton)/1,000 = 2,658 1,000 lbs/day

Monthly Average

Parameter	Production x ELG Factor	BPT Limit
	(1,000 lbs/day) x (lbs/1,000lbs)	lb/day
BOD5	2,658 x 8.05	21,396.9
TSS	2,658 x 16.4	43,591.2

Daily Maximum

Parameter	Production x ELG Factor	BPT Limit
	(1,000 lbs/day) x (lbs/1,000lbs)	lb/day
BOD5	2,658 x 15.45	41,066.1
TSS	2,658 x 30.4	80,803.2

Paper Production (Pulp and Fine Papers)

Effluent guidelines representing the application of the Best Practicable Control Technology Currently Available (BPT)(40 CFR Part 430.22) are applied for this industry. Therefore, the final limitations have been derived pursuant to 40 CFR Part 430.22(a) for the pollutants BOD5, TSS, and pH (see below for calculations). Effluent limitations guidelines (ELG) based on production of 1470 air dry tons / day are as follows:

40 CFR 430.22(a), BPT Effluent Limitations		
Pollutant	**Daily Maximum (lbs/1000 lbs)**	**Monthly Average (lbs/1000 lbs)**
BOD5	10.6	5.5
TSS	22.15	11.9
pH	5.0 – 9.0 s.u.	

Calculations

Avg. Daily Prod. = (1470 ADT/day) x (2,000 lbs/ton) /1000 = 2,940 1000 lbs/day

Monthly Average

Parameter	Production × ELG Factor	BPT Limit
	(1,000 lbs/day) x (lbs/1,000lbs)	lb/day
BOD5	2940 x 5.5	16,170
TSS	2940 x 11.9	34,986

Daily Maximum

Parameter	Production x ELG Factor	BPT Limit
	(1000 lbs/day) x (lbs/1000lbs)	lb/day
BOD5	2940 x 10.6	31,164
TSS	2940 x 22.15	65,121

Permit limits:

Parameter	Water Quality		ELG (Market Pulp + Paper Production)		Permit Limit	
	Avg. Monthly, lbs/day	Daily Maximum, lbs/day	Avg. Monthly, lbs/day	Daily Maximum, lbs/day	Avg. Monthly, lbs/day	Daily Maximum, lbs/day
BOD_5	N/A	N/A	37,566.9	72,230.1	37,566.9	72,230.1
TSS	N/A	N/A	78,577.2	145,924.2	78,577.2	145,924.2
pH	6.0 – 9.0 s.u.		5.0 – 9.0 s.u.		6.0 – 9.0 s.u.	

Additionally, the Adsorbable Organic Halogen (AOX) limits were calculated based on the annual unbleached pulp production and effluent guidelines representing the application of the Best Available Technology economically achievable (BAT) (40 CFR Part 430.24). The Permittee has reported unbleached pulp production for lines 1A (softwood), 1B (softwood) and 2 (softwood) as 778, 812, and 1212 tons per day, respectively. Based on 40 CFR 430.24(e), AOX limits must be determined at the end of the pipe. Therefore, production of 2,802 tons per day of pulp has been used to calculate AOX limits as follows:

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

Calculations

Avg. Daily Prod. = (2802 ADT/day) x (2,000 lbs/ton) /1000 = 5,604 1,000 lbs/day

Monthly Average

Parameter	Production x ELG Factor	BAT Limit
	(1,000 lbs/day) x (lbs/1,000lbs)	lb/day
AOX	5604 x 0.623	3491.3

Daily Maximum

Parameter	Production x ELG Factor	BAT Limit
	(1,000 lbs/day) x (lbs/1,000lbs)	lb/day
AOX	5604 x 0.951	5329.4

Permit limits:

Parameter	Water Quality		ELG		Permit Limit	
	Avg. Monthly, lbs/day	Daily Maximum, lbs/day	Avg. Monthly, lbs/day	Daily Maximum, lbs/day	Avg. Monthly, lbs/day	Daily Maximum, lbs/day
AOX	N/A	N/A	3491.3	5329.4	3491.3	5329.4

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

Internal Outfalls 01A, 01B, and 01C

The permittee demonstrated in a letter dated January 28, 2002, that flow meters on each of the bleach lines was not feasible. The Division concurred and will continue to allow the monitoring to take place as outlined in Condition Nos. 14, 15, 16, and 17 of Part II of the permit.

40 CFR 430.24 requires that the following parameters not be present in the effluent above the minimum levels specified in 40 CFR 430.01. These minimum levels, which are the MQLs for each parameter, are specified below and are based on 40 CFR 430.01.

Parameter	Minimum Level
2,3,7,8-TCDD	< 10.0 pg/l
Trichlorosyringol	< 2.5 µg/l
3,4,5-Trichlorocatechol	< 5.0 µg/l
3,4,6-Trichlorocatechol	< 5.0 µg/l
3,4,5-Trichloroguaiacol	< 2.5 µg/l
3,4,6-Trichloroguaiacol	< 2.5 µg/l
4,5,6-Trichloroguaiacol	< 2.5 µg/l
2,4,5-Trichlorophenol	< 2.5 µg/l
2,4,6-Trichlorophenol	< 2.5 µg/l
Tetrachlorocatechol	< 5.0 µg/l
Tetrachloroguaiacol	< 5.0 µg/l
2,3,4,6-Tetrachlorophenol	< 2.5 µg/l
Pentachlorophenol	<5.0 µg/l

2,3,7,8-TCDF from the Internal Outfalls

40 CFR 430.24 requires the level of 2,3,7,8-TCDF to be at or below 31.9 pg/l in the effluent from each of the lines.

Chloroform from the Internal Outfalls

According to the supplemental production data submitted by the permittee, the highest average monthly productions for each of the three lines is as follows. The Office of Water Quality recognizes that these production levels add up to a level greater than the highest monthly average used in calculating limits for Outfall 001. This is because the highest monthly average for each line occurred in different months.

Outfall	Line Number	ADTPD	lbs ADP/day
01A	1A	778	1,556,000
01B	1B	812	1,624,000
01C	2	1212	2,424,000

40 CFR 430.24, BAT Effluent Limitations		
Pollutant	**Daily Maximum lbs/1,000,000 lbs**	**Monthly Average lbs/1,000,000 lbs**
Chloroform	6.92	4.14

Calculations

Monthly Average

Parameter	Outfall	Production x ELG Factor			BAT Limit
		(1,000,000 lbs/day) x (lbs/1,000,000 lbs)			lb/day
Chloroform	01A	1.556	x	4.14	6.4
Chloroform	01B	1.624	x	4.14	6.7
Chloroform	01C	2.424	x	4.14	10.0

Daily Maximum

Parameter	Outfall	Production x ELG Factor			BAT Limit
		(1,000,000 lbs/day) x (lbs/1,000,000 lbs)			lb/day
Chloroform	01A	1.738	x	6.92	10.8
Chloroform	01B	1.712	x	6.92	11.2
Chloroform	01C	2.020	x	6.92	16.8

Permit limits:

Parameter	Outfall	Water Quality		ELG, lb/day		Permit Limit, lb/day	
		Avg. Monthly, lbs/day	Daily Maximum, lbs/day	Avg. Monthly, lbs/day	Daily Maximum, lbs/day	Avg. Monthly, lbs/day	Daily Maximum, lbs/day
Chloroform	01A	N/A	N/A	6.4	10.8	6.4	10.8
	01B	N/A	N/A	6.7	11.2	6.7	11.2
	01C	N/A	N/A	10.0	16.8	10.0	16.8

4. Stormwater Runoff

   Effluent limitations guidelines have not been promulgated for stormwater discharges subject to 40 CFR 430. Therefore, the permittee is required to obtain separate permit coverage for stormwater runoff associated with industrial activity, which is not discharged through Outfall 001.

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

The 208 Plan is being updated to revise the BOD5 limit from 36,191 lb/day during November through July to 37,566.9 lb/day year-round based on changes in actual production levels.

E. **Priority Pollutant Scan (PPS)**

DEQ has reviewed and evaluated the effluent in accordance with the potential toxicity of each analyzed pollutant using the procedures outlined in the Continuing Planning Process (CPP).

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 (AWQS), Rule 2 (Rule 2.508) and criteria obtained from the "Quality Criteria for Water, 1986 (Gold Book)".

Under Federal Regulation 40 CFR Part 122.44(d), as adopted by Rule 6, if a discharge poses the reasonable potential to cause or contribute to an exceedance above a water quality standard, the permit must contain an effluent limitation for that pollutant. Effluent limitations for the toxicants listed below have been derived in a manner consistent with the Technical Support Document (TSD) for Water Quality-based Toxics Control (EPA, March 1991), the CPP, and 40 CFR Part 122.45(c).

The following items were used in calculations:

Parameter	Value	Source
Flow = Q	56.4 MGD = 87.14 cfs	Application
7Q10	992 cfs	U.S.G.S.
TSS	33 mg/l	CPP
Hardness as $CaCO_3$	211 mg/l	CPP
pH	7.97 s.u.	OUA0025 (March 2011)

The following pollutants were reported above the required MQL:

Pollutant	Concentration Reported, µg/l	MQL, µg/l
Arsenic, Total Recoverable	120	0.5
Copper, Total Recoverable	4.4	0.5
Lead, Total Recoverable	0.76	0.5
Mercury, Total Recoverable	0.0078	0.005
Nickel, Total Recoverable	7.8	0.5
Zinc, Total Recoverable	97	20
Phenols, Total Recoverable	6.5	5
Bis(2-ethylhexyl)phthalate	20	10

Instream Waste Concentrations (IWCs) were calculated in the manner described in Appendix D of the CPP and compared to the applicable Criteria. The following tables summarize the results of the analysis. The complete evaluation can be viewed on the Division's website at the following address:

https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0002968_Calculations%20of%20Water%20Quality%20Based%20Effluent%20Limitations_20120328.pdf

1. **Aquatic Toxicity Evaluation**

a. Acute Criteria Evaluation

Pollutant	Concentration Reported (C_e) µg/l	$C_e \times 2.13$[1]	Instream Waste Concentration (IWC)	Criteria[2]	Reasonable Potential (Yes/No)
			Acute, µg/l	Acute, µg/l	
Copper, Total Recoverable	4.4	9.372	6.20	123.15	No
Lead, Total Recoverable	0.76	1.619	0.01	956.02	No
Mercury, Total Recoverable	0.0078	0.0166	0.0099	5.67	No
Nickel, Total Recoverable	7.8	16.614	10.51	8528.63	No
Zinc, Total Recoverable	97	206.61	125.06	984.30	No

[1] Statistical ratio used to estimate the 95th percentile using a single effluent concentration or the geometric mean of a dataset.
[2] Criteria are from Rule 2.508 unless otherwise specified.

b. Chronic Criteria Evaluation

Pollutant	Concentration Reported (C_e) µg/l	$C_e \times 2.13$[1]	Instream Waste Concentration (IWC)	Criteria[2]	Reasonable Potential (Yes/No)
			Chronic, µg/l	Chronic, µg/l	
Copper, Total Recoverable	4.4	9.372	3.58	76.94	No
Lead, Total Recoverable	0.76	1.619	0.64	37.25	No
Mercury, Total Recoverable	0.0078	0.0166	0.0043	0.012	No
Nickel, Total Recoverable	7.8	16.614	5.48	947.147	No

Pollutant	Concentration Reported (C_e) µg/l	$C_e \times 2.13$[1]	Instream Waste Concentration (IWC)	Criteria[2]	Reasonable Potential (Yes/No)
			Chronic, µg/l	Chronic, µg/l	
Zinc, Total Recoverable	97	206.61	57.92	898.81	No

[1] Statistical ratio used to estimate the 95th percentile using a single effluent concentration or the geometric mean of a dataset.
[2] Criteria are from Rule 2.508 unless otherwise specified.

DEQ has determined from the submitted information that the discharge does not pose the reasonable potential to cause or contribute to an exceedance above a listed acute or chronic aquatic life criteria.

2. **Human Health (Bioaccumulation) Evaluation**

Pollutant	Concentration Reported (C_e) µg/l	$C_e \times 2.13$[1]	Instream Waste Concentration (IWC), µg/l	Criteria, µg/l	Reasonable Potential (Yes/No)
Arsenic, Total Recoverable	120	255.6	7.27	1.4[2]	Yes

[1] Statistical ratio used to estimate the 95th percentile using a single effluent concentration or the geometric mean of a dataset.
[2] Adapted from "National Recommended Water Quality Criteria: 2002 – Human Health Criteria Calculation Matrix", EPA. The respective WQC from the noted reference are Consumption of Organism Only values. The values from the reference are for a lifetime risk factor of 10^{-6}. These values have been multiplied by 10 to correspond to human health criteria lifetime risk factor of 10^{-5} as stated in Rule 2.508.

As can be seen in the tables above, the calculated IWC for Arsenic is higher than the EPA Water Quality Criterion. A.C.A. § 8-4-216 authorizes the Division to require the submission of any information relevant to meeting the requirements of the Arkansas Water and Air Pollution Control Act. A requirement to monitor and report for Arsenic once per quarter for one year has been added to the permit so that, in the event that a WQS for Arsenic is added to Rule 2.508, data will be available to perform a reasonable potential analysis. This is in accordance with the procedure in Appendix D of the CPP (Appendix D, Part IV – Chemical Specific Standards and Criteria, Section E – Protection of Human Health Criteria of the Discharge Permit, Toxic Control Implementation Procedure).

A reopener clause has been included in the permit (see Part II.2) to provide permit limits if state water quality standards are developed for the applicable pollutants, and the data shows that there is a reasonable potential for the discharge to violate those water quality standards.

15. WHOLE EFFLUENT TOXICITY

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

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

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

Requirements for measurement frequency are based on the CPP.

Although the 7Q10 is greater than 100 cfs (ft^3/sec), the dilution ratio is less than 100:1. Therefore, chronic WET testing requirements will be included in the permit.

The calculations for dilution used for chronic WET testing are as follows:

Critical dilution (CD) = (Qd/(Qd + Qb)) X 100

Qd = Average flow = 56.4 MGD = 87.138 cfs
7Q10 = 1,240 cfs
Qb = Background flow = (0.25) X 7Q10 = 310 cfs
CD = (87.138) / (87.138 + 310) X 100 = 22%

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 9%, 12%, 17%, 22%, and 29% (See the CPP). The low-flow effluent concentration (critical dilution) is defined as 22% effluent. The requirement for chronic WET tests is based on the magnitude of the facility's discharge with

respect to receiving stream flow. The stipulated test species, *Ceriodaphnia dubia* and the Fathead minnow (*Pimephales promelas*) are representative of organisms indigenous to the geographic area of the facility; the use of these is consistent with the requirements of the State water quality standards. The WET testing frequency has been established to provide data representative of the toxic potential of the facility's discharge, in accordance with the regulations promulgated at 40 CFR Part 122.48.

Results of all dilutions as well as the associated chemical monitoring of pH, temperature, hardness, dissolved oxygen conductivity, and alkalinity shall be reported according to EPA-821-R-02-013, October 2002 and shall be submitted as an attachment to the Discharge Monitoring Report (DMR).

This permit may be reopened to require further WET testing studies, Toxicity Reduction Evaluation (TRE) and/or effluent limits if WET testing data submitted to the Division 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 APC&EC Rule 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).

Note: The permittee has received permission to use synthetic dilution water.

Administrative Records

The following information summarized toxicity test submitted by the permittee during the term of the current permit at Outfall 001.

Permit Number:	AR0002968	AFIN:	41-00002	Outfall Number:	001
Date of Review:	3/18/2021	Reviewer:	T. Cochran		
Facility Name:	Domtar A.W. LLC - Ashdown Mill				
Previous Dilution series:	11, 15, 20, 26, 35	Proposed Dilution Series:	9, 12, 17, 22, 29		
Previous Critical Dilution:	26%	Proposed Critical Dilution:	22%		
Previous TRE activities:	None				

Frequency recommendation by species	
Pimephales promelas (Fathead minnow):	once per quarter
Ceriodaphnia dubia (water flea):	once per quarter

TEST DATA SUMMARY

	Vertebrate (*Pimephales promelas*)		Invertebrate (*Ceriodaphnia dubia*)	
TEST DATE	Lethal NOEC	Sub-Lethal NOEC	Lethal NOEC	Sub-Lethal NOEC
12/31/2020	35	35	35	35
9/30/2020	35	35	35	35
6/30/2020	35	35	35	35
12/31/2019	35	35	35	35
9/30/2019	35	35	35	35
6/30/2019	35	35	26	35
12/31/2018	35	35	35	35
9/30/2018	35	35	35	35
6/30/2018	35	35	35	35
3/31/2018	35	35	35	35
12/31/2017	35	35	35	35
9/30/2017	35	35	35	35
6/30/2017	35	35	35	35
3/31/2017	35	35	35	35
12/31/2016	35	35	35	35
9/30/2016	35	35	35	35
6/30/2016	35	35	35	35
3/31/2016	35	35	35	26
12/31/2015	35	35	35	35

REASONABLE POTENTIAL CALCULATIONS

	Vertebrate Lethal	Vertebrate Sub-lethal	Invertebrate Letha	Invertebrate Sub-Lethal
Min NOEC Observed	35	35	26	26
TU at Min Observed	2.86	2.86	3.85	3.85
Count	19	19	19	19
Failure Count	0	0	0	0
Mean	2.857	2.857	2.909	2.909
Std. Dev.	0.000	0.000	0.227	0.227
CV	0	0	0.1	0.1
RPMF	0	0	0	1.1
Reasonable Potential	0.000	0.000	0.000	0.931
100/Critical dilution	4.545	4.545	4.545	4.545
Does Reasonable Potential Exist	No	No	No	No

PERMIT ACTION

P. promelas Chronic - monitoring
C. dubia Chronic - monitoring

Additional requirements (including WET Limits) rationale/comments concerning permitting:

16. **SAMPLE TYPE AND FREQUENCY**

Requirements for sample type and sampling frequency have been based on the current discharge permit with the following exceptions. The monitoring frequency for FCB has been reduced to once per quarter since the permittee has complied with the limits during the entire term of the previous permit. This was the only parameter eligible for a monitoring frequency reduction because the frequencies for other parameters were reduced in the previous permit. All "24-hr composite" samples have been changed to "composite" in order to allow the permittee flexibility in how the required samples are obtained.

The AOX monitoring frequency at Outfall 001 has been reduced from once per week to once every two months. This change is based on EPA's guidance on performance based monitoring frequency reduction and was made since the average level discharged in the past two years has been less than 25% of the permit limit.

The sample type for Total Recoverable Arsenic is grab, as the main parts of the treatment system consists of approximately 750 acres of ponds and an aeration basin. The frequency of once per quarter for these parameters is based on the CPP – Appendix D, Part IV – Chemical Specific Standards and Criteria, Section E – Protection of Human Health Criteria of the Discharge Permit, Toxic Control Implementation Procedure.

Parameter	Previous Permit		Draft Permit	
	Frequency of Sample	Sample Type	Frequency of Sample	Sample Type
OUTFALL 001				
Flow	continuous	totalizing meter	continuous	totalizing meter
BOD_5 (year-round)	three/week	grab	three/week	grab
BOD_5, lbs per cfs of receiving stream)	three/week	calculated	three/week	calculated
TSS	once/week	grab	once/week	grab
AOX	once/week	grab	once/two months	grab
SO_4	once/quarter	grab	once/quarter	grab
TDS	once/quarter	grab	once/quarter	grab
FCB	once/month	grab	once/quarter	grab
Total Rec. Arsenic	N/A	N/A	once/quarter[1]	grab
pH	once/week	grab	once/week	grab
INTERNAL OUTFALLS 01A, 01B, and 01C				

Parameter	Previous Permit		Draft Permit	
	Frequency of Sample	Sample Type	Frequency of Sample	Sample Type
Flow	daily	calculate	daily	calculate
2,3,7,8-TCDD	once/quarter	24-hr composite	once/quarter	composite
2,3,7,8-TCDF	once/quarter	24-hr composite	once/quarter	composite
Trichlorosyringol	once/quarter	24-hr composite	once/quarter	composite
3,4,5-Trichlorocatechol	once/quarter	24-hr composite	once/quarter	composite
3,4,6-Trichlorocatechol	once/quarter	24-hr composite	once/quarter	composite
3,4,5-Trichloroguaiacol	once/quarter	24-hr composite	once/quarter	composite
3,4,6-Trichloroguaiacol	once/quarter	24-hr composite	once/quarter	composite
4,5,6-Trichloroguaiacol	once/quarter	24-hr composite	once/quarter	composite
2,4,5-Trichlorophenol	once/quarter	24-hr composite	once/quarter	composite
2,4,6-Trichlorophenol	once/quarter	24-hr composite	once/quarter	composite
Tetrachlorocatechol	once/quarter	24-hr composite	once/quarter	composite
Tetrachloroguaiacol	once/quarter	24-hr composite	once/quarter	composite
2,3,4,6-Tetrachlorophenol	once/quarter	24-hr composite	once/quarter	composite
Pentachlorophenol	once/quarter	24-hr composite	once/quarter	composite
Chloroform	continuous	24-hr composite	continuous	composite

[1] Monitoring and reporting for Total Recoverable Arsenic is only required for the first four calendar quarters of the permit term.

17. **PERMIT COMPLIANCE SCHEDULE**

The permittee is required to conduct all testing required by EPA Form 2C and submit the results to DEQ. This requirement is due to the age of the results submitted with the original renewal application. 40 CFR 122.21 requires that the test results be no more than four and a half years old.

The permittee is required to submit a Notice of Intent for coverage under the general permit for stormwater runoff associated with industrial activity. This requirement has been added to the permit since the Stormwater Pollution Prevention Plan condition that was in the previous permit has been removed.

18. MONITORING AND REPORTING

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

19. SOURCES

The following sources were used to draft the permit:

A. Application No. AR0002968 received November 3, 2011, with all additional information received by May 9, 2012.
B. Arkansas Water Quality Management Plan (WQMP).
C. APCEC Rule 2.
D. APCEC Rule 3.
E. APCEC Rule 6.
F. 40 CFR Parts 122, 125, and 430.
G. Discharge permit file AR0002968.
H. Discharge Monitoring Reports (DMRs).
I. "2018 Integrated Water Quality Monitoring and Assessment Report", DEQ.
J. "2018 List of Impaired Waterbodies (303(d) List)", DEQ, May 2020.
K. USGS Scientific Investigations Report 2008-5065.
L. Continuing Planning Process (CPP).
M. Technical Support Document For Water Quality-based Toxic Control.
N. Inspection Report dated March 11, 2010.
O. E-mail from Mike Tillman of EPA Region VI to John Bailey, P.E. dated August 7, 2012.
P. E-mail from Kim Fuller, P.E. to Mike Tillman dated August 15, 2012.
Q. E-mail from Mike Tillman to Mo Shafii dated September 19, 2012.
R. Letter from C. Brandon Ayers, P.E. to Loretta Reiber, P.E. dated November 8, 2012.
S. EPA Region 6 memo dated April 24, 2013 regarding guidance for implementing TMDL WLAs.
T. Letter from EPA to Mo Shafii dated August 20, 2013, clarifying implementation of TMDLs.
U. Letter from EPA to Ryan Benefield, P.E. dated September 23, 2013, containing a General Objection to Draft Permit.
V. Withdrawal of General Objection letter from EPA to Mo Shafii dated December 18, 2013.
W. Updated production data received February 21, 2019.
X. Withdrawal of Red River TMDL for Minerals dated November 16, 2018.
Y. Water Quality Management Plan Update Summary report dated October 27, 2020, which includes MultiSMP modeling analysis dated May 28, 2019, and technical acceptance letter dated January 17, 1995 from EPA regarding tiered BOD_5 limits based on stream temperature.
Z. *Permit Guidance Document - Pulp, Paper, and Paperboard Manufacturing Point Source Category* (EPA, May 2000)
AA. Comments on draft permit from Dennis McComb with the permittee dated March 12, 2021.

20. **PERMIT FEE**

In accordance with Rule 9.403(A)(1), the annual fee for the permit is $15,000.

21. **PUBLIC NOTICE**

The public notice of the draft permit was published for public comment on February 14, 2021. The last day of the comment period was March 16, 2021.

A summary of the comments received by the DEQ during the public comment period and response to the comments are included with this permit decision. The response to comments also includes a discussion of any substantial changes from the draft permit.

Copies of the draft permit and public notice were sent via email to the Corps of Engineers, the Regional Director of the U.S. Fish and Wildlife Service, the Department of Parks, Heritage, and Tourism, the EPA, and the Arkansas Department of Health.

22. **POINT OF CONTACT**

For additional information, contact:

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Division of Environmental Quality
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RESPONSE TO COMMENTS
FINAL PERMITTING DECISION

Permit No.: AR0002968

Applicant: Domtar A.W. LLC
Ashdown Mill

Prepared by: Loretta Carstens, P.E.

The following are responses to comments received by the Division of Environmental Quality (DEQ) regarding the draft permit number referenced above and are developed in accordance with regulations promulgated at 40 C.F.R. §124.17, Arkansas Pollution Control & Ecology Commission (APC&EC) Rule 8 (Administrative Procedures), and Arkansas Code Annotated (A.C.A.) §8-4-203(e)(2).

Introduction

The above permit was submitted for public comment on October 10, 2012. The public comment period ended on November 9, 2012. A second draft permit was submitted for public comment on February 14, 2021. The second public comment period ended on March 16, 2021.

This document contains a summary of the comments that the DEQ received during the public comment period ending on March 16, 2021. The permittee was the only party to comment on the draft permit.

Comment 1: The three internal outfalls discharge wastewater from an elemental chlorine free (ECF) bleaching process. As such, the permittee acknowledges that monitoring for dioxins and chlorinated compounds at the internal outfalls is required in accordance with 40 CFR 430, Subpart B. However, 40 CFR 430.02 does not specify a required minimum monitoring frequency for dioxins and chlorinated compounds and defers that decision to the permitting authority.

The draft permit requires quarterly monitoring for dioxins and chlorinated compounds consistent with the permit issued in 2007. The permittee has reported results below detection levels for all dioxins and chlorinated compounds in the permit since at least 2007. This compliance record would seem to allow a reduction in monitoring frequency according to EPA's guidance on monitoring frequency reductions. Such monitoring frequency reductions have been allowed for similar ECF facilities in other states. Therefore, Domtar respectfully requests that the monitoring frequencies for dioxins and chlorinated compounds be reduced from quarterly to annually.

Response 1: The OWQ recognizes that Domtar has been in compliance with the permit limits for dioxins and chlorinated compounds. The OWQ also recognizes that other states may only require annual monitoring for those parameters. However, the two other permits for bleach pulp

and paper mills in Arkansas both require quarterly monitoring and reporting requirements for those parameters.

It is important to note that the limits for the chlorinated compounds require the levels to be below detection level. The OWQ removed the dioxin limit at Outfall 001, in part, because the requirements for the internal outfalls would not be changing. The frequency will remain quarterly.

Comment 2: Domtar previously requested that fish tissue sampling requirements be removed from the permit. DEQ denied this request for reasons documented in Response #2 in Item #4 of the Fact Sheet. In this response, DEQ states that "the Division recognizes that dioxins have not been detected in the final effluent during the term of the previous permit." Domtar respectfully requests that the phrase "issued in 2007" be added to this statement to document that dioxins have not been detected at Outfall 001 for much longer than the typical 5-year permit term.

Response 2: The OWQ has no objections to adding the phrase as requested in the specified place in the Fact Sheet. This change was made in Response #2 in Section 4 of the Fact Sheet.

Comment 3: The administrative records table for WET data in Item #15 of the Fact Sheet contains a typographical error. The "Proposed Critical Dilution" is stated to be 29% but should actually be 22% to be consistent with the other sections of the Fact Sheet and the Permit.

Response 3: The referenced item in the Fact Sheet was corrected.

Comment 4: Item #6.10 of the Fact Sheet states that "BMP requirements have replaced the SWPPP requirements. The permittee is required to obtain separate permit coverage for stormwater runoff associated with industrial activity that is not discharged through Outfall 001." However, the permit does not specify when separate coverage must be obtained relative to the effective date of the permit. Domtar respectfully requests that a statement be added to the Schedule of Compliance allowing 60 days after the effective date of the permit to apply for separate stormwater coverage.

Response 4: A statement was added to Part IB of the permit to allow 60 days to submit the application to obtain coverage under the IGP. A statement was also added requiring Domtar to follow their current SWPPP until coverage under the IGP has been granted.

Comment 5: In December 2020, the 1A Pulp Mill was shut down in order to undertake a capital project coverting it from a hardwood mill to a softwood mill. The 1A Pulp Mill and Bleach Plant were successfully restarted on softwood in January 2021. The intention of Domtar is for the Ashdown Mill to be a total softwood mill producing market and fluff pulp. This conversion will have no effect on production capabilities of the 1A Pulp Mill. As this conversion has taken place, Domtar requests that all references in the permit to the 1A line being a hardwood mill are changed to softwood mill. The 1A Bleach Plant will comply with the softwood parameters to demonstrate compliance with the chloroform limits. References to a hardwood mill are in Part II on page 16 and in the Fact Sheet on page 22. Also, this change and the prior change of the 1B Mill will have to be reflected on the monthly DMR.

Response 5: The changes were made as requested.